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ELEVENTH ANNUAL REPORT

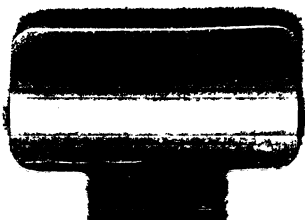
Oregon State Horticultural Society

THIRTY-SECOND ANNUAL MEETING

ASTORIA, OREGON

August 14, 15, 16, 1919





ELEVENTH ANNUAL REPORT

THIRTY-FOURTH ANNUAL MEETING
OF THE
OREGON STATE
HORTICULTURAL SOCIETY

HELD AUGUST 14, 15, 16, 1919
ASTORIA, OREGON

ORGANIZED 1885
INCORPORATED 1901

Salem, Oregon:
THE PACIFIC HOMESTEAD
1920



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Oregon State Horticultural Society

Officers and Committees

Officers

J. O. HOLT, President, Eugene
ROBERT PAULUS, Vice-President, Salem
C. D. MINTON, Secretary-Treasurer, Portland

Board of Trustees

HENRY E. DOSCH, One Year, Hillsdale
CHARLES L. McNARY, Two Years, Salem
J. B. PILKINGTON, Three Years, Portland

Auditing Committee

ALBERT BROWNELL
C. A. BURT
J. B. PILKINGTON

Committee on Needed Legislation

ROBERT C. PAULUS, Salem
CHAS. A. PARK, Salem
DR. C. A. MACRUM, Mosier
BEN WORSLEY, Astoria
L. T. REYNOLDS, Salem

Members

Honorary Members

Atwell, H. C. (1911), Forest Grove	Lambert, J. H.* (1895), Portland
Cardwell, Dr. J. R.* (1897), Portland	Luelling, Seth* (1895), Milwaukie
Dosch, Henry E. (1911), Hillsdale, Portland	Miller, H. B. (1911), 509 E. 21st St. N., Portland
Lake, E. R. (1892), Pomological Dept., Washington, D. C.	Smith, E. L. (1911), Hood River
	Starr, James E.* (1898), Portland

*Deceased.

Life Members

Anderson, Nils P., McMinnville	McCargar, C. A., Yeon Bldg., Portland
Armstrong, E. C., Salem	McDonald, M., Oregon Nursery Co., Orenco
Bateham, A. P., Portland	McGill, A., Beck Bldg., Portland
Better Fruit Pub. Co., E. H. Shepard, Hood River	McNary, U. S. Senator C. L., Salem
Bridge Horticultural Society, Bridge, Coos County	Marcum, C. A., care Portland Hotel, Portland
Brownell, Albert, Sargent Bldg., Portland	Mason, Julius L., Hood River
Brumfield, J. T., Portland	Meier, Julius L., care Meier & Frank, Portland
Bryant, Hub, Albany	Minton, C. D., Portland
Carter, J. L., Hood River	Moulton, L. D., McMinnville
Central Horticultural Society, Coquille	Myrtle Point Horticultural Society, Myrtle Point
Chase, W. E., West Ave. and E. Burnside, Mt. Tabor, Portland	Newell, W. K., Portland
Clark, L. E., Hood River	Park, Chas. A., Salem
Coos Bay Fruit Growers' Association, Marshfield	Paulus, R. C., Salem
Cordley, A. B., Dean, O. A. C., Corvallis	Pemberton, John, Salem
Daugherty, Otis Ray, R. F. D. 1, Molla	Pilkington, J. B., Portland
Davidson, Frank L., Hood River	Pcwer, Frank W., Oregon Nursery Co., Orenco
Davidson, P. S., Hood River	Quarnberg, A. A., Vancouver, Wash.
Eggert, Mrs. Fred'k, 265.14th St., Portland	Rees, J. H., Springbrook
Elliott, Wm., Dallas	Reuter, Tillman, Madras
Esterly, H. M., Yeon Bldg., Portland	Reynolds, L. T., Salem
Fanning, A. M., Sheridan	Roberts, E. C., Lebanon
Fargo, G. K., 83 Fifth St., Portland	Rumbaugh, H. G., Albany
Forbis, John F., Dilley	Settlemeier, Frank W., Woodburn
Goodrich, A. C., *Yamhill	Deceased, 1914
Groner, Ferdinand, R. F. D. 2, Hillsboro	Swallow, C. W., R. F. D. 3, 118, Oregon City
Gibson, R. D., R. F. D. 5, Salem	Wallace, F. W., McMinnville
Gale, H. E., Merlin	Weber, R. H., The Dalles
Holaday, Asa, Scappoose	Westerlund, J. A., Medford
Holt, J. O., Mgr. Eugene Fruit Growers' Association, Eugene	Williamson, H. M., Secretary State Board of Horticulture, Portland
Howe, Ed. L., Multnomah Hotel, Portland	Deceased, 1917
Laidlaw, W. A., 1515 Belmont St., Portland	Williamson, W. E., Portland
	Deceased, 1917

Annual Members, 1920

Ayers, E. L., Junction City	Barss, H. P., Corvallis
Amoth, H. L., Newberg	Baker, W. B., 469 Everett St., Portland
Armstrong, Harley, Freewater	Bellman, E. L., Eugene
Astoria Chamber of Commerce, Astoria	Bouquet, A. G. B., Corvallis
Alexander, J. D., R. F. D. 4, Salem	Booth, J. H., Roseburg
Allen, A. V., Astoria	Brown, W. S., Corvallis
Arp, Max, Eugene	Brown, O. V., Blind Slough, Astoria

- Bremner, Jas., Astoria
 Brunhall, W., Curtis
 Butterfield, I., Blind Slough, Astoria
 Butterfield, J., Blind Slough, Astoria
 Butner, Foster, Roseburg
 Branman, D. K., R. F. D. 2, Salem
 Barnard, Chas. W., Eugene
 Braden, Winnie, Portland
 Brown, A. L., Astoria
 Bowlby, J. Q. A., Astoria
 Berswick, Lars, Astoria
 Brown, C. S., Astoria
 Butcher, E., Astoria
 Brenner, James, Astoria
 Beebe, J., Eugene
 Brown, C. V., Astoria
 Butterfield, J. H., Astoria
 Childs, Leroy, Hood River
 Chase, F. B., Eugene
 Clatsop Cranberry Association, Astoria
 Clarke, H. H., Central Point
 Covitch, Martin F., Astoria
 Cooley, S. D., Roseburg
 Cornelius, Judge Scott, Astoria
 Currin, C. J.
 Campbell, J. C., Southerlin
 Carpenter Bros., R. F. D. 3, Salem
 Coolidge, A., R. F. D. 8, Salem
 Campbell, Dugold, Eugene
 Carlson, Leb., Astoria
 Carlson, Andrew, Astoria
 Croissant, J. W., Lynes
 Calkins, W. W., Eugene
 Dearborn, G. A., Dundee
 Duncan, Edw., R. F. D. 3, Salem
 Dunbar, Albert, Astoria
 Danz, S., Astoria
 DeLap, J. W., R. F. D. 2, Salem
 Ewing, A. R., R. F. D. 1, Box 25, Salem
 Esiman, F. D., Rogue River
 Eddy, B. L., Roseburg
 Edlefsen, Wm. S. A., Loraine
 Erickson, Olaf, R. F. D., Astoria
 Extrom, H., Astoria
 Frye, John
 Fisher, Fred, R. F. D. 2, Roseburg
 Fellows, A. A., Salem
 Fostrum, Dr. T., Astoria
 Frantovich, L., Astoria
 Flavel, Capt. Geo., Astoria
 Goodrich, Luke, Eugene
 Gallaher, S. M., Astoria
 Gill, R. W., Portland
 Gillsdorf, Turner
 Gralapp, H. H., R. F. D. 8, Salem
 Gratke, John, Astoria
 Frantiscovich, Martin
 Gilbert, Phillip, Salem
 Gibson, G. W., R. F. D. 1, Salem
 Grico, L., R. F. D. 2, Salem
 Geer, R. W., Astoria
 Gootling, O., Astoria
 Gray, E. E., Astoria
 Grimberg, A. G., Astoria
 Gordon, S. S., Astoria
 Gilmore, Patrick, Astoria
 Grayham & Watt, Astoria
 Griffin, J. N., Astoria
 Gallagher, S. M., Astoria
 Gootling, O., Astoria
 Gray, E. E., Astoria
 Grosbeck, Van, Cresswell
 Harvey, Joe, Roseburg
 Harlow, T. B., Eugene
 Halfer, H. R., Astoria
 Henderson, G. P., Roseburg
 Hoyt, C. D., Hood River
 Hune, C. J., Roseburg
 Hutchings, Ira, Brownsville
 Hansen, Otto, Salem
 Harlow, M. H., Eugene
 Harlow, Frank, Eugene
 Hines, Geo. Portland
 Hadley, W. J., Turner
 Hildebrant, August, Astoria
 Higgins, C. R., Astoria
 Halderman, Chas, Astoria
 Hanlin, Frank, Astoria
 Hesse, Frank C., Astoria
 Hafner, H. R., Astoria
 Jessup, I. M., Cooks, Wash.
 Johnson, K. F., R. F. D. 1, Astoria
 Johnson, J. E., Astoria
 Jalcff, A., Astoria
 Johnston, P. H., 545 East 23d St. North,
 Portland
 Kenin, S. B., Astoria
 Kullunki, Walter, Astoria
 Kletzing, W. A., Eugene
 Leahy, T. A., Astoria
 Lechner, H. J., Astoria
 Leinenweber, Frank, Astoria
 Lewis, C. I., Corvallis
 Lewis, Jno. E., Roseburg
 Lily, D. G., Forest Grove
 Lounsbury, G. W., Astoria
 Leukanuan, J. H., Astoria
 Lenthal, Sam, Astoria
 Lourin, T. F., Astoria
 Lechner, H. J., Astoria
 Madison, W., Astoria
 Morton, H. F., Southerland
 Marsh, Geo., Lookingglass
 McGregor, W. F., Astoria
 Mullen, E. P., Milton
 Murdich, L. S., Brooks
 Mathews, Sam, care Gardner Hotel,
 Fargo, N. D.
 Maris, Paul, Corvallis
 Miller, Frank, Eugene
 Mehan, Frank, Eugene
 Mocre, Delbert, Astoria
 Morgan, L. M., Astoria
 Madison, William, Astoria
 Matherson, Enoch E., Astoria
 Moore, J., Astoria
 McKail, M. J., Astoria
 Needham, Frank, Eugene
 Nelson, August, Astoria
 Nelson, Martin, Astoria
 Ostrom, J. A., Astoria
 Ostrom, A., Astoria
 O'Connell, J. H., Astoria
 Olsen, Ben S., Seaside
 Parson, Reginald, Seattle, Wn.
 Peterson, O. I., Astoria
 Percy, Knight, Salem
 Perrin, H. W., Drain
 Patton, Frank, Astoria
 Peterson, O. I., Astoria
 Pentilla, John, Astoria
 Reith, John, Astoria

Annual Members, 1920

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Rosenberg, O. C., Astoria
Russell, E. H., Wilber
Roman, J. E., Astoria
Ross, J. T., Astoria
Rosenberg, Dr. C. O. C., Astoria

Scanbuong, Dr. L. A., Eugene
Smith, W. G., Wolf River
Spexarth, A. G., Astoria
Sheppard, Fred, R. F. D. 2, Salem
Scott, John M., S. P. Co., Portland
Shaw, C. L., Portland
Smith, W., Grays River
Sherman, W. A., Astoria
Staples, Norris, Astoria
Stevens, Mrs. H. C., Astoria
Schroder, J. R. C., Astoria
Schmidt, Chris, Astoria
Seeborg, Victor, Astoria
Steinbreun, John G., Shaw
Stansberry, J. E., Portland
Stewart, O. E., Cottage Grove
Stearns, A. F., Oakland

Tolz, Henry, Roseburg
Thrane, John, Eugene

Trye, John, Astoria
Taylor, E. H., R. F. D. 4, Salem
Trover, H. D., Salem
Teter, R. D., R. F. D. 3, Salem
Trick, T. D., R. F. D., Salem
Thranmes, Jno., Eugene

Van Anken, L. M., Roseburg
Van Dusen, B., Astoria

Waite, F. L., Eugene
Waterhouse, John, R. F. D. 1, Warrenton
Weatherspoon, H. H., Elgin
Weed, Howard Everett, Beaverton
Weland, L. A., Roseburg
Wise, Herman, Astoria
Winston, H. A., Roseburg
Worsley, Ben S., Astoria
Wood, R. H. C., Roseburg
Waite, F. L., Eugene
Withers, T. O., Astoria
Wise, Herman, Astoria

Yothers, M. A., Medford

Zong, James L., Astoria

AMENDED ARTICLES OF INCORPORATION

of the

OREGON HORTICULTURAL SOCIETY

Know All Men by These Presents: That we, the undersigned, Homer C. Atwell, of the County of Washington; Frank W. Power, of the County of Multnomah, and James R. Shepard, of the County of Polk, all in the State of Oregon, being officers of the Oregon State Horticultural Society, unincorporated, and having been duly elected to the respective offices hereinafter specified, in accordance with the usages and regulations of said Society, do hereby associate ourselves together for the purpose of incorporation, under and by virtue of the general incorporation laws of the State of Oregon, relative to religious, literary, benevolent, charitable and similar societies; and we do make, subscribe and adopt, in triplicate, these articles of incorporation, to-wit:

1. The name assumed by this corporation, and by which name it shall be known, is Oregon State Horticultural Society; and its duration shall be unlimited.

2. The object, business and pursuit of this corporation is, and shall be, as follows: (1) The development of agricultural and especially of those branches known as horticulture, floriculture, arboriculture, and forestry; (2) the development of landscape gardening, and of all arts, sciences and instrumentalities likely to elevate the character of the rural population and increase the profits, comforts and pleasures of rural life; (3) the collection, preservation and dissemination of knowledge relative to the foregoing and other kindred subjects; (4) the exploitation and development of all agencies tending to conserve the natural resources of the country, and to arouse the public to an interest in such conservations; (5) to acquire, own, hold, use, sell, and otherwise dispose of and convey real and personal property; to accept, receive and use gifts, devices, legacies, bequests, and legislative appropriations; to borrow money, and execute therefor its promissory notes, mortgages and other assurances; (6) to do any and all other acts and things which may be necessary, advisable or convenient, for the purpose of more effectually accomplishing the purposes aforesaid, or any of them.

3. The estimated value of the property and money possessed by said Society at this time is one hundred dollars; and the sources of its revenue or income is, and will be, dues of its members, subscriptions, donations, devices, legacies, bequests and legislative appropriations, and any income which may be derived from the investment or use of any moneys or property so acquired.

4. The respective title of the officers making these articles are as follows: Homer C. Atwell, president; Frank W. Power, secretary-treasurer, and James R. Shepard, vice-president. They shall hold their respective offices until their successors therein shall be duly elected and qualified. Their successors in office shall be elected by a majority vote of the members of said Oregon State Horticultural Society who are in good standing and present, and voting, at an annual meeting of said society on the first Tuesday of December,

1919; and on such other day and month of each succeeding year thereafter as may be designated in the by-laws of said society as the date of its annual meeting, said annual meetings to be held in the city of Portland, Oregon.

5. The location of said Society shall be in said city of Portland, in the County of Multnomah, and State of Oregon.

HOMER C. ATWELL, President,
J. R. SHEPARD, Vice-President,
FRANK W. POWER, Secretary-Treasurer.

We, the undersigned, A. P. Bateham, president; E. H. Shepard, vice-president, and Frank W. Power, secretary-treasurer, of the Oregon State Horticultural Society, certify that at the annual meeting of the Society, held November 16, 1911, the following resolution was unanimously adopted:

Resolved, That the officers take the necessary steps to file amended Articles of Incorporation placing the legal powers of the Society in the officers and three trustees, in place of the officers alone, as at present.

In accordance with said resolution the following, to be known as Section 6 in the Articles of Incorporation will be appended as the amendment thereto:

"Section 6. The management of the affairs of the Society shall be vested in the president, vice-president and secretary-treasurer and three trustees. They shall be elected at the annual meeting each year, which shall be held at such time as may from time to time be fixed by the by-laws. The officers and trustees shall hold office for such time as provided from time to time in the by-laws."

Signed in triplicate and sealed with the seal of the Society this fifteenth day of October, 1912.

A. P. BATEHAM, President,
E. H. SHEPARD, Vice-President,
FRANK W. POWER, Secretary-Treasurer.

Acknowledged before Notary Public.

**AMENDED BY-LAWS OF THE
OREGON STATE HORTICULTURAL SOCIETY**

(Adopted November 20, 1912)

ARTICLE I—The Society Year.

The Society year shall begin on the first day of January.

ARTICLE II—Membership.

Section 1. The membership of the Society shall consist of annual, life and honorary members.

Section 2. Any person who shall pay the annual membership fee of one dollar shall thereby become a member for the current year, ending with the opening of the next annual meeting.

Section 3. Any person who shall pay the life membership fee of ten dollars shall thereby become a life member and shall be excused from further payment of membership fees.

Section 4. Any person who in the opinion of the Society has done the Society or horticulture in general some especially valuable service may be elected to honorary membership by a two-thirds vote of the members present at any regular meeting and shall be excused from payment of all membership fees.

Section 5. Those who were honorary members before the incorporation of this Society shall continue to be considered honorary members, without further action of the Society.

Section 6. All members shall be entitled to the same rights and privileges.

ARTICLE III—Officers.

Section 1. The officers of this Society shall be a president, a vice-president, and a secretary-treasurer, and three trustees. The last four shall be under bond in such sum as the Society may designate for the faithful discharge of his duties.

Section 2. The president and secretary shall be ex-officio members of all committees except the auditing committees.

Section 3. The duties of said officers shall be such as usually devolve upon like officers in similar organizations; provided, that no bills shall be paid without the approval in writing of the president and secretary-treasurer; and provided further that a committee of three, to be chosen annually by the Society, shall audit all bills, reports and accounts and render a report thereon to the Society.

Section 4. The secretary shall, at each annual meeting, render a report showing:

First—The personal property of the Society in his hands.

Second—The irreducible funds, securities and bills receivable belonging to the Society, stating how such funds are invested, and the interest then accrued on the same and on the other securities

and bills receivable. Said report shall cover all documents of permanent value or use.

Third—He each year shall render to the auditing committee a complete report of the cash receipts and disbursements for the preceding year and this report, together with the report of the auditing committee, shall be made a part of the proceedings and printed in the annual report.

Fourth—The premiums offered, and by whom offered, and what was the final disposition of same.

Section 5. The three trustees appointed by the Governor as a Board of Control of the state appropriation, together with the president and secretary of the Society, shall constitute an executive committee, which committee shall be empowered to transact any and all business of the Society that may be necessary between meetings of this Society.

The executive committee shall from time to time fix the compensation of the secretary of this Society as they may deem the requirements of the office may justify.

ARTICLE IV—Date of Annual Meeting.

The annual meeting shall be held on such days in November or December of each year as the officers may, from year to year, designate. The officers shall be elected on the afternoon of the second day of the annual meeting. The president, vice-president and secretary-treasurer shall take charge of their office on the first day of January next following their election and hold office for one year, or until their successors are elected and qualified.

The trustees shall be chosen in accordance with the Act of Legislature so long as an appropriation is given by the state, and unless otherwise provided therein shall hold office for three years. In case the legislature shall fail to grant an appropriation in any year, the trustees shall be elected for three years by the Society.

ARTICLE V—Other Meetings.

Section 1. Other meetings may be held at such times and places as the Society by vote at a previous meeting may designate.

Section 2. The president may call a special meeting at Portland by causing notice thereof to be mailed to each member at least five days previous thereto, such notice to state the object of such meeting.

Section 3. It shall be the duty of the president to call a special meeting whenever requested in writing so to do by fifteen or more members.

ARTICLE VI—Publications.

Every member shall be entitled, without cost, to one copy of all official reports published by the Society.

ARTICLE VII—Quorum.

Nine members shall constitute a quorum for the transaction of business, but a less number may meet, call to order, and adjourn from time to time.

ARTICLE VIII—Order of Business.

The following order shall be observed as a guide in the transaction of business at the annual meeting of the Society:

1. Call to order and reading of minutes of previous meeting.
2. Reports of officers.
3. Reports of committees.
4. Unfinished business.
5. New business.
6. Election of officers.
7. Papers, addresses, etc.

ARTICLE IX—Rules of Practice

Roberts' Rules of Order shall govern the deliberations of the Society.

ARTICLE X—Irreducible Fund.

All life membership fees, together with the sum of \$2,000.00 of the amount heretofore realized from the bequest of the late Cyrus E. Hoskins, the "Lambert Fund," and the "Cardwell Fund," shall be kept intact and invested on good securities, so as to produce a revenue, if possible, and only said revenue shall be expended by the Society.

ARTICLE XI—Personal Property

The secretary shall be the custodian of all badges, banners, dyes, medals, blanks, books and other property of the Society of value or suitable for future use; and shall exact from his successor an itemized receipt for said property, when same is transferred.

ARTICLE XII—Record of Reports.

The annual reports of the officers and of the auditing committee and all reports relative to the finances, or property of the Society, or the disbursements of its fund, shall appear in full in the record of transactions, in the order of their filing with the secretary following the record of the meetings at which the reports were presented. The treasurer's report shall be made to the auditing committee showing a full report of receipts and disbursements and said report together with report of the auditing committee shall be made a part of the proceedings.

Said reports may either be pasted upon said record, or copied, in which latter case the copy shall be attested by the secretary.

ARTICLE XIII.

The executive committee may, if they deem it advisable, lend the assistance of the Society in any display of fruits and products of the state.

ARTICLE XIV—Amendments.

New by-laws may be adopted and old ones changed or repealed by a two-thirds vote of the members present at any meeting;

provided, notice of such proposed adoption, change or repeal shall have been given at the last previous meeting of the Society; and, provided, further, that a vote to change or repeal Article X shall be by yeas and nays, recorded on the record book of the Society. Said vote shall be taken only at an annual meeting, and after due notice given at the annual meeting next preceding the same.

SECRETARY'S ANNUAL REPORT.

Secretary: When our association met at Roseburg at its last annual session and elected our present worthy president, it did so out of desire to recognize the worth of one who has been an ardent horticulturist for many years and who has been a consistent aid to the industry and to the association.

Through the co-operation of the various fruit growers organizations our annual membership has been greatly augmented and there is now a larger list of these members larger than at any time since it has been my privilege to be secretary of your organization.

I am glad to note a perfect harmony between the various interests of horticulture, all of them working to build up this industry.

Through the aid of our legislative committee, working in conjunction with the Horticultural Board, we were again enabled to secure an appropriation to assist in carrying on the educational work of the society and to secure a largely-increased appropriation for the executive work of the State Horticultural Board.

Our irriducible funds are invested in government bonds and drawing 3 ½ and 4 per cent interest.

Our last annual report has been entirely distributed and was much sought after by those interested in horticulture as well as the agricultural colleges throughout the United States and Canada.

The future of the horticulturist is especially bright. A fine market impatiently awaits his products and our watchword should still continue to be "forward, ever forward."

All of the reports are very much sought after from every college, and every experiment station both in United States and Canada, and I think there is hardly a college but what asks that the reports of this society be sent to them. The reason for that is simply that we have always endeavored through the entire life of the society to have our programs such as are of real horticultural interest to all of those who are concerned in horticulture, and these reports each year are printed and distributed to the members, and only to the members.

C. D. MINTON,
Secretary-Treasurer.

**FINANCIAL STATEMENT OF THE OREGON STATE HORTI-
CULTURAL SOCIETY FOR THE YEAR ENDING
DECEMBER 31, 1919.**

Lambert Fund	\$ 100.00	
Hoskins Fund	2000.00	
Cardwell Fund	168.50	
Life Membership Fund	605.00	
		<u>\$2873.50</u>

Invested as follows—

U. S. Liberty Loan, 4 per cent	\$2500.00	
U. S. Liberty Loan, 4 ¼ per cent	350.00	
Ladd & Tilton Bank	23.50	
		<u>\$2873.50</u>

General Fund Receipts—

Balance on hand last report	\$ 880.93	
Interest on bonds	122.29	
Life memberships	20.00	
Annual memberships	58.00	
		<u>\$1081.22</u>

Disbursements—

Portland Trust Company	\$ 10.00	
Statesman Publishing Co.	3.50	
Astorian	3.50	
C. D. Minton, expense	73.00	
J. L. Hartman & Co.	7.50	
Elnor Carlson, stenographer	35.00	
Statesman Publishing Co., Printing	13.72	
Erwin Hodges, badges	22.50	
Pacific Paper Co., envelopes	2.38	
Ladd & Tilton, exchange09	
		<u>\$ 171.19</u>
Balance		<u>\$ 910.03</u>

Trial Balance

Cash on hand	\$ 910.03	
Loss and gain		\$ 919.38
Lambert Fund		100.00
Hoskins Fund		2000.00
Cardwell Fund		168.50
Life Membership Fund		605.00
Government Bonds	2850.00	
Supplies	9.35	
Due Irreducible Fund from G. F.	23.50	
		<u>\$3792.88</u>
	<u>\$3792.88</u>	<u>\$3792.88</u>

We, your committee, duly appointed to audit the books and accounts of Mr. C. D. Minton, the secretary-treasurer of the Oregon State Horticultural Society, hereby certify that we have this day examined all books and records submitted to us and find the same

in order in every respect covering the year ending December 31, 1919.

We also certify that the cash on hand, as shown by the Trial Balance is on deposit with the Ladd & Tilton Bank, and we have had exhibited to us U. S. Liberty Bonds to the aggregate sum of \$2850.00.

Dated Portland, Oregon, May 24, 1920.

E. A. BURT.
ALBERT BROWNELL.

REPORT OF MEETING

THURSDAY, August 14, 1919

Gentlemen! The time has arrived for the thirty-fourth annual convention of the Oregon State Horticultural Society. I regret just a little bit that through circumstances that I don't understand, that there are not more of the members present. I am certain that on the arrival of the train tonight, more members from outside of the county will be with us. We will have Mr. Bremner tomorrow.

Mr. Holt, the next member on our program, is not yet with us, so we will have Mr. Henry E. Dosch, veteran of horticulture in this state, to address us at this time.

Henry E. Dosch: Mr. Chairman, I assure you it is an honor to be appointed to take the place of our president. If I had known I had to make a speech, I would have thought up something.

When I first landed in your city in April, 1864, I found it a very congenial, happy place. Everybody that you met on the streets, met you with a smile, shook your hand. I think it was Emerson that said, "The world loves a lover," and he might have added, "The world loves a smile." Look at our chairman, meets you always with a smile.

By reason of the congenial and welcome invitation by our president, this society was brought to Astoria as he reflects the spirit of the people of Astoria by his congeniality. This society was put on wheels to meet in places where horticultural information is badly needed. We are all scholars, the professor is a student and the student is a professor. At these meetings, and while it is a great pleasure to be able to give information, it is equally as pleasant to receive it and only such spirit can pervade any successful meeting.

As far as horticulture is concerned, we need to make some strides, and I feel that in your district right here there is no good reason why you could not raise just as many apples, pears, and berries as anywhere. You have the climate and the soil. This coast region is especially adapted to apples. There is no reason why you should not raise pears. Cranberries, which thrive so well here, you can not grow everywhere. We grow all kinds of berries all over the state.

I am sorry that we have not the attendance here this afternoon that we should have had. It is the wrong season of the year to hold a session, but the spirit of that happy congeniality caused our whole association to come down here and have a good time.

Reading of the minutes of the last meeting.

C. D. Minton: Mr. President, as the minutes of last meeting are in printed form, I move this order be passed. Carried unanimously.

President: There is nothing left on this afternoon's program, but the president's annual address.

I am going to tell you that for the second time in my life as a public speaker, I have written my address, and I did this last night and wrote this one.

I must tell you of the first one I wrote. I was called upon to make a political speech. I had some doubt about my ability, but I told him that I would do it. In order to be absolutely sure, I took about 10 days of my afternoons and evenings and I wrote that speech that I was to speak, and I committed it to memory on the Saturday before the Wednesday upon which I was to deliver that speech. I was then chairman of the K. of P. and I got three of the boys up on Saturday afternoon and I put them away down in the back of the hall, and I got up at the other end of the hall and I delivered that speech. It took me about 25 minutes. When I got through the boys said, "If you'll deliver that speech at the banquet as well as you did then, it will be wonderful!"

I put the speech in my pocket, got on the boat and I went to Portland. Got to the Portland Hotel about 6 o'clock. Changed my clothes and came down into the banquet hall. There were three speakers ahead of me, and when I got up on my feet and walked up to where I was going to speak, doing as all men do, I picked up a glass of water and I was absolutely stage struck. I couldn't remember a thing of that speech if you had killed me, and I kind of stammered and I took another drink of water, and I didn't know, nor remember a word of it. I looked over at the chairman and I never saw such a look on a man's face before, but I started in and I want to tell you that I made one of the best speeches I ever made in my life, and none of it was the written speech.

However, I am going to read this.

PRESIDENT'S ADDRESS.

By B. S. Worsley

John Ruskin has said, "The law of nature is that a certain quantity of work is necessary to produce a certain quantity of good, of any kind whatever. If you want knowledge, you must toil for it. If food, you must toil for it, and if pleasure, you must toil for it."

"In this thirty-fourth year of the annual session of the Oregon State Horticultural Society, we have met at the birthplace of civilization in the Pacific Northwest, and here in Clatsop County can today be seen sturdy fruit trees planted by the pioneers upon Clatsop Plains, and what does not Oregon owe to such men as J. M. Garrison and R. C. Geer, who brought to Oregon about a peck of apple seeds and about half as much pear seeds, in 1847; and to such men as Hendersen Leulling, and Judge Cyrus Olney, and without fear of successful contradiction that it is highly probable that there is no place on the face of the earth that is superior to our beloved state in its climate and ideal conditions for horticultural development, and the native energy of those immigrants and the natural nursery of further development of energy they found in this climate and other conditions to which they came, made them destroyers of living timber in order to clear land to plant nursery stock.

Oregon, the state of plenty, is nothing if not a horticultural state. All fruits, including the most tender varieties, do well here.

In Oregon the planter can not only find the localities best suited to the different varieties of fruit, but in addition, has his choice as to climate. Having just completed a tour of the state and visiting every county therein, have just asked myself the question many times, where and to what portion shall be designated as the favored locality. Many times have I thought that if that all wise Providence, who selected that land on the banks of the Tigris as the one favored spot, made a mistake for if he had seen Oregon as I have seen it, then Oregon would have been the Garden of Eden. The man who desires to reap the fruits of his labor through horticulture may select Eastern Oregon with its extreme seasons. Southern Oregon may tempt him with its enchanting valleys, clear skies and balmy air. The Willamette Valley hundreds of miles in length with its equable climate throughout the year, now is producing the finest walnuts and almonds in the world. Our sea coast counties are among those which grow the vinous fruits, which no portion of the state can excel.

Looking over the whole state, then, may we not summarize and add, that among the varied resources of the great commonwealth of Oregon, potent in its capacity for contributing to the national development of the state to its proper position as one of the foremost states in the Union, it is not at all too much to say that fruit growing, if not destined to take the first rank is certainly capable of being expanded into the equal of any.

Neither Oregon's forests, its mines, its fisheries, its farms, dairies, cattle ranges, sheep walks, nor its manufacturies will in their future growth be entitled to outrank its horticultural products if proper methods are adopted by the horticulturist of the state. Here, under the peculiar climate conditions by which we are surrounded, blessed as we are by fertile and responsive soils, is, as has been fully demonstrated, the natural habitat of the apple, the pear, the quince, the plum, the prune, and all its varieties. Here in many localities flourish the peach, the apricot, the almond and walnut. Here under intelligently considered conditions the grape, the fig, the pomegranate, the Medler pear, the Japanese Persimmon, grow to maturity, ripen and become useful and agreeable adjuncts of the farm and home. The strawberry, the loganberry, blackberries of every variety, raspberries, red and black, currants, gooseberries, and dewberries, cherries of every known variety, and all varieties of melons are at home here. In short it may be said that, excepting the citrus and semi-tropical fruits, Oregon offers to the fruit grower an exceptionally attractive field for the exercise of all his faculties in this important and most attractive branch of business of the tiller of the soil.

Oregon offers all the advantages and is capable of furnishing happy and contented homes in regions of beautiful and majestic landscape, and unsurpassed climate for millions of people. In our just estimation will be the richest operating field of the brain and sinew of the rising generation, the yeoman of our national supremacy. Let it be remembered that a happy and prosperous citizenship is the controlling force in the reserve power of our government, and all that contributes to the general welfare and happiness of the citizens, strengthens the bulwark of our enduring nationality.

We are all proud that we are members of the Oregon Horticultural Society. We are proud of its founders. Proud that our names

are upon the roster of an organization that among its ranks are the names of the men who were the founders of that magnificent institution of learning, the Oregon Agricultural College, the state board of horticulture and promulgators of all the horticultural laws of our state.

Another year has rolled by and we meet again to talk over things, some of which are old to us, some new to us. Each of us comes enlarged by the experience which another year has added to our lives and hoping to secure the benefits of the experience of others which another year has brought to them. It was a grand idea when this horticultural society was formed, that these meetings were decided upon as the interchange of ideas between men and their fellow beings has been responsible for the development reached by the human race up to this time. These meetings afford the opportunity for the exchange of ideas along lines of vital interest to everyone interested in the fruit growing and gardening industry.

With gratification, I am pleased to report to you that every resolution that was adopted at our last annual meeting through the active co-operation of the various committees, has been successfully accomplished.

The legislature was ever ready to grant all requests to advance the horticultural interests of the state and \$30,000 was appropriated to be used for field investigation of insect pests, and fungus diseases by the Oregon Agricultural College; \$6000 was added to the appropriation for the State Board of Horticulture and \$1000 to assist the Horticultural Society in its work.

The subjects selected for this meeting cover all portions of the state, but particular care has been exercised to give subjects that would be of special interest to the coast counties of the state, and sincerely trust that a strong interest will be manifested, that great benefit may accrue to the cranberry, small fruits and truck gardening, interests of the coast counties.

In closing, I wish to say brains are essential on the farm and in the orchard, berry farm or truck garden as in the office or counting room. The way lies through intelligent investigation of markets and methods, the application of brains to the agricultural and horticultural problems. We must study to please the tastes and notions of the world's consumers, and must avail ourselves of the researches of the biologist, the bacteriologist, the entomologist, and the investigations of the experts in crops and market conditions. Uninformed and unenlightened are at a great disadvantage these days of sharp trading and scientific adaption of means to an end.

Thanking the officers for their hearty co-operation in all matters pertaining to the welfare of the society, and that our united efforts at this the thirty-fourth annual meeting of our society may be conducive to a greater development of the horticultural interests of the state.

President: We have with us Mr. C. L. Smith. Mr. Smith, let us hear from you.

Mr. Smith: I don't know what I could say that would be of advantage to you. While the president of the meeting talked about the opportunities of horticultural developments in the state of Oregon, and its natural adaption, I was thinking about another

horticultural society that I have been a member of for 50 odd years, and there is something in connection with it perhaps that might be of value to you.

My experience has been that men are apt to take more interest and make more progress where there are difficulties to overcome, and I think one of the disadvantages the Horticultural Society of Oregon is laboring under is that it is too easy to grow fruit in the state of Oregon. Now this is your thirty-fourth annual meeting, and how many members have you?

President: About 200.

Now, I am a charter and life member of the Minnesota State Horticultural Society, where we have long cold winters, and we have an annual paid membership of over 2000. We hold similar annual meetings, regular annual meetings at which time business of the society is transacted and the officers elected, and then we hold always one summer meeting, and they are always attended with interest.

We make a larger, and I think a more varied horticultural display at the state fair, than I have ever seen here in Oregon. Now I think perhaps the society and the interest in those counties is particularly due to the difficulty that we encounter, and I think that horticulture in Oregon has not progressed to the highest degree, because as I said, it is too easy to grow fruit.

I noticed here a few days ago the fact that some Gravenstein apples sold at wholesale in Portland for \$4.00 a box. I have sampled Gravenstein apples in various provinces of Canada and nearly every state in the Union, but the best Gravenstein apples that I have ever seen, grow in the coast counties of Oregon. They can be grown in these hills along the coast, but how many people in Oregon know that. How many people in the coast counties know it, know that apples grow here, Gravenstein apples, and I think that there is nothing ahead of it.

I have contended for years that the consumption of apples could be increased indefinitely if the people who grow and market apples would do it a little more intelligently. I know you may find Ben Davis and Ganos for sale in the city for Jonathans, and people buy and taste them and say that "Why Jonathans are no good," and you go into the stores and to the public market in Portland today and you can find but a very small percentage of seasonable fruit on the market, and what is there, a very small percentage of it has been properly handled and graded for market.

I would simply suggest from my knowledge in regard to it, that one of the needs of horticulture in the state of Oregon, is that the society start some kind of a program to multiply your membership ten fold or more. You want a larger membership so that when you hold a meeting next year in Oregon, I think Portland is more easily reached, you will have a large attendance, but do not leave out the other districts. Hold semi-annual meetings in some other district and hold your annual meeting in Portland, and get the people of the state interested and then advertise not only to the outside, but to people of this county, the opportunities and advantages of growing certain varieties of fruit.

If I was about 40 years younger, I could not think of anything more profitable than to plant an orchard of Gravenstein apples back

in these hills somewhere. Had I done this 30 years ago I would have a source of income for my grandchildren, because I know the quality that can be grown in those apples.

I know of one section in California where they are raising Bell Fleur apples, but there is no comparison to those Bell Fleur apples and the Bell Fleur apples that you can grow here. You can raise not only Bell Fleur apples here in these coast counties, but you can raise Bell Fleur apples that look good enough to eat when they are shown. They have a color that is different from the Bell Fleur grown in the dry section.

Now, I might go on with other things. Well, I have seen fine loganberries in the Willamette Valley, but I never saw in the Willamette Valley, or anywhere else, loganberries that could compare in size, in quality and in number per square rod, than I have seen right down on the banks of the Pacific Ocean. They are the largest, most delicious, and best quality of loganberries that I have ever found.

Now how many people down in these counties know that. This is a great state, with about 200 members in its horticultural society. Somebody, somewhere, must have made a mistake. I don't know if I need to say anything more.

President: Meeting is adjourned until 9 o'clock tomorrow morning.

FRIDAY, August 15, 1919

MORNING SESSION.

Meeting called to order by President B. S. Worsley.

President: We will now listen to the address by Mr. W. E. Schimpff.

THE CRANBERRY INDUSTRY IN OREGON.

By W. E. Schimpff

While the cranberry industry in Clatsop County is comparatively new, yet cranberry culture on the Pacific Coast began about 35 years ago. Hector McFarlin, an old time Cape Cod cranberry grower, came to the Pacific Coast and established himself at Coos Bay, Oregon, where he set out a five-acre marsh. McFarlin lived from the fruits of this acreage until his death, and always spoke of himself as a cranberry grower and never as a farmer. About this same time, A. Chabot set out a cranberry marsh of considerable acreage in Pacific County, Washington. Chabot died before his marsh came into bearing and after his death no real effort was made to keep up the same. Although today the old marsh is badly overgrown with weeds and grasses, the cranberry vines which were planted 35 years ago still thrive and bear some fruit.

We might even go further back in the history of this section and find that cranberries had some value as a commercial product. Lewis and Clark found cranberries at the Indian village of Wishrau, at the Falls of the Columbia River, according to the journal of Patrick Gass, one of the members of the party. Continuing their journey down this mighty stream to its mouth, on the first visit of the Indians to trade with them, Lewis and Clark purchased cranberries from these primitive people. Mention is often made of this little fruit in the diary of the intrepid explorers, and with elk meat, deer and other game must have helped in making their stay at the mouth of the river quite enjoyable. While the principal article of commerce of the Indians of this vicinity was salmon, the fact that cranberries were seen by the great pathfinders at Wishran seems to prove that this fruit was a factor of some importance in the primitive commerce of the natives.

After the settlement of Clatsop Plains by Americans, while cranberries were picked in the nearby marshes and sent to California markets, there was a ready demand for this fruit in our neighboring state. The marshes were considered one great common and whoever wanted cranberries helped himself. The development of the industry in Cape Cod and the improvement of the quality of the eastern pack worked a hardship on the primitive methods used by Coast cranberry pickers and shippers, and a trade which had been established with California was lost to the East.

The real impetus to the cranberry industry in this section came about 1910, at this time an 80 acre marsh was set out to vines at

Seaview, Washington. From Cape Cod, came H. M. Williams, a descendant of an old Massachusetts cranberry family, and under his direction about 200 acres of cranberry marsh was set out, near Ilwaco, Washington. In 1911, C. N. Bennett, and associates began operations for the construction of a good-sized bog in Clatsop County, Oregon. This venture was under the direction of D. M. Rezin, a former Wisconsin cranberry grower. Rezin left the Wisconsin country because of the uncertainty of its crops. He first settled in the Coos Bay, Oregon, region, where his marsh adjoined that of McFarlin, and during the later years of McFarlin's life, Rezin managed the McFarlin marsh. The construction of the Coos Bay railroad cut the Rezin marsh into bits, so Mr. Rezin came to Clatsop County and engaged in the cranberry industry here, where he is now busily occupied.

I will speak more particularly of the culture of this little berry in Clatsop County inasmuch as it is in Oregon. The principal tract of bog land in Clatsop County lies along the right of way of the S. P. & S. Railway, about 11 miles south of Astoria. It extends to the eastward about a quarter of a mile, being bound on that side by Cullaby Lake and Cullaby Creek. The soil is a deep peat bog, wild cranberries grow therein in profusion. About 15 years ago, Clark Carnahan built Cullaby Ditch, connecting the waters of Cullaby Lake with the Skipanon, a tributary of the Columbia. The purpose of this construction was to bring logs from the Cullaby Lake district to the mills of the Columbia River. The cutting of this district drained the marsh lands and they were later used for pasturage. Nothing was done in the way of cranberry development until C. N. Bennett came into the field.

All conditions seem to be met here. The mouth of the Columbia is one of the greatest frost free zones in the world. We have a long growing season and a generous rainfall, combined with bright, sunny and warm days in summer; no real hot days come to this section. All economic plants show preference as to general conditions as, for instance, soil, climate, etc. None is more exacting in this respect than the cranberry. Given ideal conditions, it thrives and yields bountifully, but under less favorable conditions it will not reward the grower for his trouble; certainly not for his expense.

The home of the cranberry is generally regarded as Cape Cod, Massachusetts. It is from this district that most of the ideas concerning the cultivation of cranberries originated. It may interest you to know that the leading authority on cranberries in that state, and for that matter, in the United States, Dr. H. J. Franklin, in a bulletin of the Massachusetts Agricultural College, states that in but one place in the United States is the Cape Cod production of cranberries exceeded, and that section is the district at the mouth of the Columbia River. The average yield for an acre of cranberries in Massachusetts, according to Dr. Franklin, is 30 barrels. The yield in Clatsop County for 1918 was in excess of 3000 barrels and the producing acreage less than 100. The first crop in this county already equals the crop per acre at Cape Cod.

To the rule that berries thrive better in Oregon than elsewhere, the cranberry is no exception. Records of 100 barrels to the acre are not uncommon in the region of the mouth of the Columbia River and crops of greater figures than this had been picked from marshes. Last year at the Dellmoor Bog, Clatsop County, one acre of marsh

yielded 135 barrels of cranberries. The best record made for Oregon of which we have any knowledge was made at the McFarlin marsh at Coos Bay in 1908, when his 5-acre tract yielded a crop of 1000 barrels. One small patch of berries that seem to be bearing a particularly heavy crop was measured off and the number of boxes picked from the same counted. This piece measured 10x16 feet, and its yield was an even six boxes. Had the crop been uniformly as large over an entire acre as over the small piece, we would have had a total of 1633 boxes for an acre; or, reduced to barrels, 544 barrels. While it is hardly to be expected that this record could be maintained for one acre when one remembers that a barrel of cranberries weighs 100 pounds, we can see that a yield of 100 barrels per acre means a crop weighing five tons. This, we must admit, is some crop in avoirdupois. Even a potato patch would be proud of it.

While there are cranberry experiment stations in several of the states, it is a fact that can hardly be disputed that there is still much to be learned about the cranberry. This little fruit is so entirely different in almost every particular that the fruit grower who visits a cranberry bog for the first time is impressed with the strangeness of the whole atmosphere about a cranberry bog. All of our agricultural and horticultural knowledge has come from plants which are grown on alkaline soils, and while a general knowledge of horticulture would be of some benefit to a horticulturist, should he be transferred to another line of horticulture from that in which he is engaged, we would have to qualify this statement by saying that he would readily adapt himself to other lines of horticulture unless he engaged in cranberry culture; when that fact would be impressed upon him every day, that here is a line of horticulture which is really entirely different. The very fact that it is grown in an acid soil makes its study, while fascinating in the extreme, a most difficult one. It would seem almost as though we are dealing with a plant belonging to some bygone age of geology. It interests us much as the study of life in the middle ages interests a student of history, or a journey through China, the traveler. It seems to be at the very extreme of all that we know about the ordinary fruits of commerce, just as life in the Middle Ages or in China today seems to us to be quite impossible to us in America.

Commercially, the cranberry is far from being insignificant. The production in the United States being between 500,000 and 600,000 barrels annually. Reduced to a per capita consumption, this is but one pint per capita. There is no question but that this can easily be increased, so the prospective cranberry grower need have no fear of an over production for many years to come. In fact, the increase in production of cranberries in the United States is hardly keeping pace with the increase in population. Wisconsin was at one time the greatest cranberry producing state in the Union; today, it ranks third, being outranked by Massachusetts and New Jersey. You can readily grasp the possibilities of the industry on the Pacific Coast. Today, we are unable to supply the needs of the Coast, and with increased production, it is more than likely that increased consumption will keep pace with production and we shall hardly be able to take care of more than the needs of the Pacific Coast's growing population.

The Pacific Coast seems to be especially favored in having a mild climate combined with a generous rainfall. Next in importance to climate is sand and water. Sand is used in modern construction methods on all clean culture bogs. Drainage is a very important essential. Here in Clatsop County proper drainage was created at the time of the construction of Cullaby Ditch. The waters of Cullaby Lake furnish an unlimited supply of water for the needs of the cranberry grower, whenever he feels that he wants to use it. A pumping plant capable of pumping 5000 gallons of water per minute on the marsh has been installed by one of the growers in this country. This plant is more in the nature of an insurance policy, and it is quite possible that its services may not be used for an entire season. With it, however, the grower feels that should he desire to flood or irrigate, he may do so at any time.

Next in importance to the natural requirements, all of which Clatsop County possesses, are commercial requirements. First in importance of these is transportation. The cultivated bogs of this county all border the main line of the S. P. & S. Railway, and but a stone's throw distant is the western end of the Columbia River Highway, paved for most of the distance between Astoria and Seaside. Its products have the best of opportunity to get to markets readily, as the common point for Astoria means not only for all products coming into Astoria, but for all products going out as well; this includes cranberries. Astoria and Seaside are two cities from which labor can be drawn, and even Portland is but half day's journey from the bogs. The power lines of the Pacific Power and Light Company run along the highway between Astoria and Seaside, and it is from this line that growers some day expect to receive power and light.

Of particular importance is the fact that the bogs are right on the line of the railroad, as this means that the growers construct their packing houses directly at the right of way of the transportation company. There is no hauling cost to the railway. The packing houses act both as storage houses and as packing houses as well. The cranberry is one of the fruits that is not sent to the market immediately upon its being harvested. For this reason particular attention is being paid to storage and packing houses; and for this reason splendid packing houses are being built. One of the most modern and complete cranberry packing houses is now nearing completion in this county. It is of hollow tile construction, the floors are of so-called mill construction, having ventilated spaces through which cool air can be sent through the berries at any time the grower feels it necessary. The openings in the storage floor are so arranged that every tier of storage boxes has at least one opening under the tier, gratings through the lower of packing house floor permit the cool air from underneath the building to be rushed through the berries at night, ventilators on the roof of the warehouse furnishing the pull for the air.

The growers of this county have an association to which every grower, with but one exception, belongs. This association in turn belongs to the Pacific Cranberry Exchange, which markets the cranberries. The Pacific Cranberry Exchange is composed of the Oregon Association, acting with several Washington associations. While it is a young organization, it may interest you to know that last year, when but 1 year old, it embarked upon an advertising cam-

paign which helped materially in selling its product last fall, when conditions were really most adverse, on account of the sugar restrictions in effect at that time.

Mr. Worsley: Our next number is an address by Mr. J. H. Butterfield.

MARKET GARDENING.

By J. H. Butterfield

Mr. Butterfield: Mr. President, and members of the Oregon State Horticultural Society: I don't know just why they got me into this exactly, but I am here, and although I am not very much of a speaker, and it will be more from a practical point. I am not a speaker and my talk will be from broad experience considerably. That is all I have to offer, because when I leave here, I will go back to the farm and put on my overalls.

To start in, when I started some six years ago, we started in a small way, and then we figured that we must form a company. Of course I did not have anyone to take into this company, only my wife.

Now in starting, the garden truck farm is different than the average farm. It requires a complete study in itself. You must have the very best of soil, and to do this you must make a study of the crops, and the different crops that you produce so that you know which crops takes the most of his land, and what crops is most practical.

The words "Market Gardening" covers a wide scope, and is not to be confused with general farming; it is a line entirely distinct by itself which requires a continuous study which no other part of agriculture requires.

It is necessary that the truck farmer should keep his land in the very best of condition. This is done by rotation of different crops and the use of commercial fertilizer, as his means of keeping up the fertility of his land is not what the dairy farmer has. To obtain this he must make a study of the soil upon which his crops are produced and keep a record of his rotation so he may know what crops is best to follow another; and what crops are the heavier upon the land; also the quantity of fertilizer each crop requires per acre, etc. In fact, his study is by experiment on crops, soil, fertilizers, seed, weather conditions, etc. All soils are not adopted to garden truck growing. A loose muck soil gives the best satisfaction as all root crops grow uniform and smooth, thereby producing vegetables that can be graded to a standard pack without much loss to the producer:

Another main factor in garden truck is the grading and packing of the product ready for market. The progressive garden truck grower has faith in his products; standardizes his vegetables by grading, puts his produce up in a clean condition, well crated, and should by all means have a trade mark under which all his products are sold. The garden truck farmer may grow his own seed in most localities, thereby having a seed that is acclimated to his territory and particular soil. Probably the greatest difficulty the average farmer has is in the marketing of his product. Most Farmers are

not salesmen and why should they be? They farm! The market gardener makes it a part of his business in the disposal of his products and increases his acreage accordingly to his trade. He establishes a standard pack and always maintains his standard.

Farm Records and Cost Accounting.—Most all farmers keep some kind of a record of their business, but not as they should to arrive at their labor income at the end of each year. The market gardener should keep a complete farm record to arrive at his annual labor income; and also very important of all, a cost account of each individual crop; by doing so, with cost of production arranging about the same as the previous year he may ascertain, at a moment's notice, a very fair figure at which he can sell; also this system gives him a chance to study his expenses, and is the only method possible whereby he may reduce his expense and increase his production. I have talked personally with dozens of farmers in Clatsop County, and there were amazed when I informed them that out of 50 farms recorded only eight were on a paying basis of from 42 to 51 per cent expense while the others, some of which run as high as 78 per cent. This figure would give the average small farm a very low labor income and chances are a very heavy mortgage. A farm record can stop the farmer before he goes too far with his farm, and allow him to know that he must increase his production and decrease his farm expense. This is the motto to follow and if followed carefully is surely to win success in the end. When the farmers of this state follow this system, and co-operate or organize, then and not until then, will the merchant to whom he sells, be stopped from putting the price down to the farmer and up to the trade. It is simply a game of "Push down" and "Push up." Which game are you playing?

Henry E. Dosch: When I picked up this paper yesterday (Better Fruit) I noticed the article headed "The Walnut as a Profitable Dooryard Tree," which puts me in mind of a verse which says, "Cast thy bread upon the waters, and it will be returned to you after many days." I never could understand what that meant until I went to Japan, and there I found that they "cast their bread upon the waters, and it was returned to them after many days." That applies to other things.

What I began 25 years ago is just returning to me. Not financially. No; but in another way, because it cost me lots of money and lots of time.

I will now read you the article.

My first experience with the walnut tree dates back about 20 years, when we purchased two lots in the city having a total area of 100x120 feet. Mrs. Apperson at that time requested that the shade trees be chestnut and black walnut trees in our parking strip, and the agent of the Oregon Nursery Company who called upon us and entered our order for these trees, insisted that we include in the order one English walnut tree. We accepted his suggestion and purchased a seedling tree, which we planted in our dooryard. It was only a few years, I think not more than four or five, until this English walnut tree began bearing, and it has borne continuously each year since, each succeeding crop being larger than the previous year.

The success of this one tree gave me considerable encouragement in the culture of English walnuts, and some 10 or 11 years after the original planting, Mr. Payne, of California, came through the valley and I had him top graft the black walnuts that were in our parking strip into Vrooman Franquettes, since which time our trees have produced nearly enough revenue to pay the taxes on our home property. We have quite a large comfortable home and the taxes on this property at the present time are approximately \$115 per year.

Upon our dooryard lots above referred to we have one seedling tree about 20 years old, and four black walnut trees, top grafted in the Franquette variety of English walnut of the same age, in which the top grafts are now about 10 years of age, and we harvested in the year 1918, 454 pounds from these five trees. The seedling tree alone produced 209 pounds, the greater portion of which my daughter sold at 27 cents per pound, while some of the Franquettes she sold at 32 cents per pound, so if we had marketed all the nuts grown on our parking strip and dooryard, we would have realized approximately \$134. This is the largest yield we have ever had, and also the highest price we have ever received for the nuts.

My purpose in speaking of walnuts is that it is another industry that should be added to the Oregon Coast counties in connection with the Gravensteins, as represented by Mr. Smith. They will keep bearing for hundreds of years. They require no spraying, not anything at all. You just pick your nuts as they fall down, dry them, and then market them. Now there you have the Gravensteins, as Mr. Smith says, that grow better here than anywhere, there are the cranberries and walnuts. They are three industries that ought to be bringing in a great deal of money.

President: The time is set for the election of new officers.

Mr. J. O. Holt: If it is time to elect a place of meeting for next year, I wish to have you come to Eugene. Now I have the invitation of our Eugene Fruit Growers' Union with a membership of 700. I also have the written invitation of our Chamber of Commerce of Eugene, and I extend to you the invitation to meet in Eugene next year.

Mr. H. E. Dosch: I second the motion that we meet in Eugene next year.

President: It has been moved and seconded that we meet in the city of Eugene next year, time to be designated later. Carried unanimously.

Mr. Minton: I wish to move that when we adjourn we adjourn to meet in the office of the secretary in December, 702 Spalding Building, Portland, Oregon. Carried.

The following officers were then unanimously chosen:

President, J. O. Holt, Eugene.

Vice-president, R. C. Paulus, Salem.

Secretary-treasurer, C. D. Minton, Portland.

Trustee for three years, J. B. Pilkington, Portland.

There being no further business the meeting adjourned for the trip to the cranberry marshes.

FRIDAY, August 15, 1919

AFTERNOON SESSION.

The members convened at the Commercial Club headquarters at 1:30 where autos were in waiting to take them as guests of the club to the cranberry marshes and other places of interest including the summer resort at Seaside. The society were royally entertained by the wide awake club of the city.

FRIDAY, August 15, 1919

EVENING SESSION—SEASIDE, OREGON

President: Ladies and Gentlemen: There are a number of things on the program for tonight. At this time I take great pleasure in introducing to you the gentleman who not only has assisted in making and developing this little city down by the sea, but the gentleman who is the present mayor of the city of Seaside.

Ladies and gentlemen, I take great pleasure in introducing to you the mayor of Seaside, Mr. Hurd.

Mr. Hurd: Ladies and gentlemen of the Oregon State Horticultural Society: I don't know whether I can come up to what our friend Mr. Worsley has just said about me, but we welcome you to Seaside. We are glad you are here and the only thing that we regret is that your stay is so short and it is the time of the year when everything is so busy. But we welcome you from the bottom of our hearts and we hope you will come again.

We are not exactly in the berry belt of horticulture as you know it, but we hope to be sometime. We have everything here to raise berries. Around here they are the finest grown, but the land is undeveloped.

We have not so many berries here, but I think if you will go down on the beach perhaps you can pick some, but we are glad you are here and I regret that the two gentlemen are not here to speak this evening, and I only wish that you could stay longer so that I could take you around in my machine and show you some of our pretty scenery in and around Seaside.

President: I don't know what I could add. I could tell you many things about this section of our country, and this section of Oregon, but those of you who are at this meeting tonight have heard me time and time again. You know what I think of these coast counties and the whole state of Oregon.

Now the meeting is open to the members of the society as well as friends, and if there is anything you desire to discuss or you desire to do, I think we are all willing to do it.

I would just like to hear a word from the president-elect, Mr. Holt. Just to get his ideas.

Mr. Holt: Mr. President and members and friends of the Oregon State Horticultural Society. I have not seen much of this part of the state. I came down here last night for the purpose of seeing your country. I have never seen much of Astoria. I have come in the night and left in the night, and I intend to go further along down here and spend a few days, looking over what has been pictured to me as a logical dairy country.

I was interested in the talk this afternoon of the young gentleman from Brownsmead. I can't recall his name.

Mr. Worsley: Mr. J. H. Butterfield.

He started in just the way that I believe is the correct way. So many of us start in with the idea of a lot of steam and push the thing right over. That is not the right way. We must start in a small way. That is the only way to get a real foundation.

You asked me about berries. I have seen lots of evergreen blackberries, but today I actually saw one of the biggest patches of nature's own blackberries that I have ever seen. I can't tell you where, it is but a few miles, between here and Astoria. It must be a wonderful place, and if you can get \$160 a ton, I can't see what more you can expect. Why you can't beat it.

B. C. is known to be the berry patch of the United States in the last 10 years. A man came down here a way back in January to order all the raspberries we could get. Ten years ago we couldn't sell half a car load of our berries. Mind you that is just raspberries alone.

I think you have a wonderful berry country right here. I predict a wonderful berry production down here.

President: I may never have another opportunity and what I may say, I can say in just a few words. I once took it upon myself to find out what the Evergreen blackberry was and where it came from and when it first came. We all know it is not a wild berry. The berry was sent to Oregon by mail, and it is now known as the Oregon evergreen. It was sent from a man by the name of Elmore who lived four miles from Rochester in the state of New York, and the berry was known in New York state as the Thompson. This berry was sent to a man by the name of Sloop who lived in Faer, who settled on a homestead in 1859. These berries were sent to him by mail and he planted them about 10 miles east of Astoria. When he found they would grow, he sent some to a man who lived over on Shoal Water Bay. Can't just remember his name, but, however, he got the first slips that Sloop planted, and that man gave a few to a man by the name of Jackson. Mr. Jackson lived down in Tillamook county. First thing we knew they grew nearly all over the state, and some were sent into California.

I just wanted to tell you these facts, and I have said for the last 20 years that the time would come when the blackberry would be the leading berry of the Northwest.

I thank you.

Mr. Holt: I would like to ask, Mr. President, if we can get through by noon, tomorrow. I would like to leave then.

President: Well there is no reason why we can't get through then.

HORTICULTURAL ADAPTABILITIES IN CLATSOP COUNTY.

By H. J. Lechner, Astoria

Our county does not claim to be horticultural except from the standpoint of small fruits. This line of horticultural production has so far only a small beginning. For the production of small fruits our climate is ideal and our soil as good as the best. Rather than emphasize our natural advantages for the kinds and varieties of fruits that do so well, it will be my purpose in the short time at my disposal to relate to you some of my "horticultural" observations since in this county.

This is truly a land of berries. Mother Nature left undisturbed would soon plant this county to berries. Perhaps \$30,000 worth of black berries will be harvested here this year, and this will leave most of the berries unpicked. According to statements made by growers our yields of strawberries are marvelous. One of our growers, whose word I have no reason to doubt, reported to me an accurately-measured yield of over 800 crates per acre. From my own observations throughout the county and the net profits per acre reported to me I feel sure that this yield, though high, is not exceptional. Just now I recall our small patch in a home garden that seemed to me to have averaged one gallon of ripe fruit per plant. These phenomenal yields are not given to boast or boost in the often accepted meaning of these terms in relation to land values. They indicate to me the ideal conditions we have here for these berries. I do not claim that we can get these yields without intelligent care and culture, but do feel that these and other illustrations which might be cited show that the careful grower finds himself sure of success here. Loganberries show returns equally profitable. The fruit produced where soil has been sufficiently manured is simply wonderful. I had a good opportunity to observe this on my own place last year.

Fruits aside from berries that are adapted to our conditions are limited. We have a few varieties of apples such as the Gravenstein, King, and three or four others that seem to be at their best here. This year I have observed great variability in susceptibility to scab. This is our worst disease. Insect pests do not find our climate a natural one. In spite of the majority of our orchards being neglected we have few wormy apples. Our Nehalem Valley particularly produces apples as good as the best in quality. Plums may also occupy an important place here, at least for a limited acreage. The canning men have been telling me of the unusual demand for Blue Damson plums. These grow in abundance here.

In a brief way this gives you a view of our lines in fruit growing. You can get your own idea of what may be done from what has been done so far.

VEGETABLES OF IMPORTANCE IN OREGON COAST COUNTIES.

By A. G. B. Bouquet, Division of Horticulture,
Oregon Agricultural College.

The horticultural industry of Oregon is not merely confined to a few areas producing fruit and vegetables, for it is a state-wide industry, in which a large number of different crops share, such as apples, pears, prunes, peaches, nuts, small fruits and vegetables of all kinds. And while it is true that some areas have reached a much greater development along some horticultural lines, than have others, yet each and every section is contributing its part to the development of the state. This Horticultural Society, as a state organization, recognizes this fact, and it is fitting, therefore, that this section of the state with its soil and climatic conditions, peculiar to the coast counties of Oregon, should at this time be host to the society and its members.

In coming to this particular section of the state, which is more or less typical of the conditions of the coast counties, I would say to the members of this society, that you have come to one of the best producing areas for vegetables in the state. You will be impressed by the vegetative growth of the crops that are grown in these parts, for nature has endowed these coast counties with remarkable conditions for the production of certain fine vegetables.

Climatic conditions have a great deal to do with the success of growing any vegetables, so much so, that for convenience we divide vegetables into two classes, cool season crops and warm season crops, respectively, which of course indicates that there are certain vegetables which prefer a temperature lower than the average during the spring, summer and fall, and likewise there are those vegetables that prefer a summer temperature higher than the average. It is a well-known fact that the climate of the coast counties is particularly cool and moist during the spring and summer months, and while it is agreed that there might be less rain during certain times of the year, yet this is a possible error on the part of the weather man in his distribution of precipitation. Many important vegetables thrive to the very best advantage under the influence of these prevailing cool and moist weather conditions. Combined with the lower temperature, which prevails in these parts, is the moisture in the atmosphere which is an asset in growing vegetables of the cool season class. One of the direct results of the climate on these vegetables is the improved quality of the same, for there is a more uniform and constant development of the vegetables rather than extreme of heat which often is not conducive to the best quality. Quality is a characteristic in vegetables which is often times not fully appreciated. Too many people think of a bean as a bean or a carrot as just a root, or a cabbage as a cabbage head, forgetting the wide difference in flavor which is brought about by the conditions under which the crop may be grown. It is quite a common thing among those who have lived, in these coast counties for a number of years, to say that the quality of certain vegetables, which I shall name, is superior to the quality of these same vegetables as grown in any other part of the state of Oregon. Quality, therefore, is a money asset in a discriminating market, for instance, in the canned goods market, you will find that the appearance of the canned goods is by no means the only desirable feature, for there is

a premium price paid for that canned vegetable which retains its superior quality in the can by virtue of its original fineness of flavor. It is true with beets, cabbage, carrots and spinach and other vegetables.

A direct result also of the climatic conditions is the longer harvesting season of many vegetables, which grow best in the cool time of the year and which when hot weather comes begin to run to seed, or rapidly deteriorate such as is exemplified in a crop of peas, spinach, head lettuce, and cabbage.

Another outstanding asset of the coast counties, with respect to the vegetable industry, is the vast amount of soil area that is well suited to the requirements of many important vegetables. Most vegetable crops contain water to the extent of 90 per cent or over, and therefore it is true that the moisture holding soils are the legitimate ones for vegetable production. Types of land which exist in the coast counties, therefore, with their moisture holding capacity, their high organic matter content, and friability, as well as having a cooler temperature and being in many cases unusually fertile have a tendency toward producing a high yield of vegetable crops, as well as inducing the superior quality which I have just mentioned. The marsh lands, and overflow bottom lands are typical of the soils of the coast counties that are suitable for vegetable growing. Some of the most productive areas used in the state of California at the present time, are very similar in physical composition, to the thousands of acres of land in this county and others bordering the coast.

While I have casually mentioned some of the vegetables that do especially well, I wish to take up each one briefly in consideration of its value as produced in these areas.

Cabbage in the history of the country has always been grown to the best advantage under the cool moist atmosphere of the sea air. Plants when young suffer less from the heat experienced in other sections, develop more uniformly, make larger heads with a very fine quality. The tonnage per acre has been demonstrated to be very unusual in these Coastal sections, which means large gross profit per acre. Canneries and dehydraters recognize the value to them of the quality of the cabbage grown, as there is also the grower who gets an unusually good yield at an established price.

Cabbage growers should carefully figure their cost of production if they are to convince contracting firms of the right price, which they should be paid for their products. The tomato growers of New Jersey who were a few years ago delivering tomatoes at \$6 to \$7 per ton to the cannery, are now demanding \$30 per ton. They have shown the tomato canneries of that state, in sworn statements, that the cost of actual production and delivery of a ton of tomatoes is \$25, this figure not being guessed at but being the result of very careful checking of all of the items concerned in the production of a ton of tomatoes.

It is not possible to grow cabbage for \$5 or \$6 per ton as we used to grow it, and it is necessary for a vegetable grower to know what it costs him to do business, so he may have the facts to present to a contracting party.

Another important thing that growers of cabbage should give close attention, is the strain of seed which they plant. With all of

the unusually valuable resources available here for high quality and quantity, there is all the more reason why coast county farmers should plant a high yielding strain of cabbage seed just as it is the ambition of those who are in the chicken business to have chickens of a high egg-laying strain, as separated from the scrubs. These superior cabbage strains are being grown by several of our cabbage growers and they are giving immense satisfaction as compared with those which might be picked up any where.

Cauliflower and broccoli are members of the cabbage tribe that find a natural home in these coastal sections. Long Island, New York, has always had the reputation of being the home of very fine cauliflower, but they have nothing superior to what can be produced in the sections bordering the coast of Oregon.

Broccoli is grown widely in England and the continent for the climate is very similar to that in these parts. At the present time the amount of broccoli which is grown in Oregon and shipped to Eastern markets hardly makes an impression on the the trade for there is very little, if any, cauliflower in the market during March and April, and most of the Oregon product never goes outside of the point of distribution. There is a splendid demand East for this product during the early part of the spring months, and there are very few parts of the country that are prepared to ship cauliflower at that time of the year. There are thousands of acres of Oregon lands that could produce this product to very excellent advantage. I am not prepared to say, however, that coast county farmers right off the bat could go into the broccoli business and make a success. Organized growing, marketing and shipping and lots of hard work have been necessary to make this crop succeed in other sections of the state. Broccoli is a splendid spring feeding crop for stock and in many instances is better than kale for it comes along after the kale is beginning to deteriorate or to go to seed and at that time broccoli is just in its best condition. At least there should be a general planting of this vegetable on all farms for home use and an abundance produced for market purposes. There are many different strains of St. Valentine broccoli on the market at the present time, some good, bad and indifferent. Some of our broccoli growers have suffered heavily in having broccoli turn out to be a poor type or something else, usually an inferior kale type. We are now growing many different types of broccoli and strains of seed on a piece of experimental land in Roseburg, where most of the crop is grown at the present time, and we intend to propagate from these best strains, and see that they are distributed.

The green garden pea offers wonderful possibilities in these sections. There is not the slightest doubt but that it reaches the highest development in quality and yield under the influence of the moist cool coastal atmosphere.

The pea is not a lover of heat and succumbs to a protracted spell of hot dry weather. Aphids are a big factor against success and destroyed the entire crop of 1918. I have watched the market conditions in Portland for the last three years and have noticed that peas go out of the market very quickly under the influence of the warm weather. The season seems to end with the price standing at 10 cents per pound, and when peas are all gone from these points the peas in the coast counties are in their prime and there is a possibility of a continued harvesting through to the fall months, in

spite of the fact that other vegetables such as corn, are arriving in August, yet I do not believe that people will quit eating peas except for the fact that they are unobtainable, on the other hand they are the epicure of the dinner table, when fresh and of good quality. Usually the markets in the interior counties of Oregon have a very short pea marketing season, and it has always appealed to me that this season could be very easily lengthened with profit to the grower by those who live in the cooler sections of the coast where this vegetable continues to produce during the summer months.

Splendidly adapted to the conditions existing in the coast counties is the crop of spinach, which quickly runs to seed under the influence of warm June weather. Our canneries and dehydrators have been offering contracts on spinach to farmers in the interior counties of the state, for there seems to be a strong demand for canned and dehydrated spinach. These plants, I understand, have not up to the present time been able to get contracts for the amount they desire. Most of the spinach has been obtained from sections in the interior counties, but these are not the best spinach producing areas in the state, at least during the last three years there has been too little moisture in the spring, and the warm weather has come along too rapidly so that the spinach has soon dried up and gone to seed. On the contrary in giving the largest yields of this vegetable it is necessary that the soil be moist, and the atmosphere cool, for such conditions produce the heaviest yields and longest marketing season. I think that the soils here show wonderful promise for the farmers to grow spinach on good bottom land at a reasonable contract price, for these lands will make a heavy tonnage, which is not possible on some of the more ordinary soils of the state, where some farmers are at the present time attempting to make money from contracts on spinach. Spinach seed has been rather prohibitive in price the last few years due to the war, but it is getting cheaper and this will have such a marked effect on decreasing the cost of production of the crop. This crop will usually come off the ground in time for another one to be planted so that there may be two crops during the growing season of the year.

Celery as a vegetable crop in these sections also offers wonderful possibilities. The habitat of this vegetable in a wild state was in low swampy places under the influence of moist coastal air and consequently there are natural conditions for producing this vegetable in these regions. We are told at Corvallis that the best celery in the world grows at Yaquina Bay, which is more or less true if one would include the celery which is grown in other coast regions of the state. Individual farmers and home gardeners should raise more celery for their own home use. In the interior counties of the state it is very unusual to find any celery in home gardens, and yet even on the average farm soil with proper manuring and watering this crop can be raised to good advantage. As the market for fresh vegetables expands there will be constant demand for more celery, also our dehydrators are offering contracts on this crop without the necessity of its being blanched.

The phenomenal yield of root crops in this section is an illustration of the producing power of the thousands of acres of lands in our coast counties. It is remarkable that roots in these areas grow to very large size with very heavy tonnage per acre and yet retain a very high quality.

Other vegetables that are especially adapted to these soils are onions, and head lettuce. There is no more widely used crop, almost every day in the year, than head lettuce. Oregon people have shown a decided preference for the solid head lettuce type, of late years, and there is still shipped into these parts, cars of lettuce, many of which should be displaced with lettuce that is grown in Oregon. Head lettuce is a vegetable that, like the pea, reaches its best size and quality under cool growing conditions. It does not tip burn, run to seed or suffer other complaints that are sometimes associated with it in growing at certain times of the year. People in Western Oregon have yet to learn concerning the choice of light varieties of lettuce that grow for different seasons, as well as, to appreciate the necessity of giving plants an abundance of room in order to develop and make a solid head. The coast counties are natural lettuce growing regions.

Home gardens on farms and in cities should not be without an asparagus bed, which is the most highly prized perennial vegetable and which thrives especially well under these conditions. Just as the permanent family orchard has its fruit trees and small fruits, so should the permanent garden area be stocked with asparagus as one of the first vegetables to be harvested in the spring and as one that does not need yearly replanting. There are comparatively few farms in most of the interior counties of Western Oregon that have asparagus plantations. This is a condition which should not exist and especially so in these counties where the conditions are so favorable.

Now I realize that we must have markets for our vegetables, either to sell them to our local markets or to ship them to distant ones in car lots or less, or to grow them under contracts for canneries or other such concerns. And in consideration of these markets there is every evidence of the rapid development of these portions of the state in the future as has been the quick development of them in the past. Watering places and seaside resorts in all of our coast counties have witnessed a development during the past few years and places, which not long ago were unheard of, have become popular resorts for people of the interior counties. These places offer splendid markets for fresh produce. Lines of communication for truck growers to get their products to market are becoming better each day. Our coast highways are improving to a permanent development so that vegetables can be carried quickly to market at the present time, whereas, heretofore it was impossible to transport these in any way.

As regards markets of canneries and dehydraters, etc., I am convinced that there are going to be more factories established in the coast counties of the state when these parties realize the splendid quality of the vegetables which they can obtain and the favorable yields which the grower can produce under these conditions, as I have previously mentioned in regard to cabbage the farmers must have a contract price on his produce that will give him a reasonable profit for his work. We must bear in mind that the soils of the coast counties are in a position to yield heavy tonnage of many green vegetables which will correspondingly reduce the cost of production and consequently give him a larger net profit per acre.

In conclusion, therefore, I say that there is every indication that in the horticultural development of the state this section will

in a few years demonstrate the possibilities of the resources of the coast counties in profitable vegetable production. And I am confident that this section of the state as representing the peculiar geographical areas of Oregon will demonstrate in the future the value of the vegetable crops which are annually grown.

Mr. Lounsberry: Is there anyone present that can tell us anything about alfalfa.

Mr. Gill: Mr. President, I am not an expert but I might give just a little of my experience with alfalfa.

I believe the day is coming when alfalfa will be grown very extensively east of the Willamette Valley.

We had some steep hills on our place that we wanted to make use of so we tried alfalfa. The first time we sowed it early in the spring, I think about the 1st of April, but it was unsuccessful. In the first place because the ground was not inoculated. The second place the weeds took it, but we did not stop at that. We decided to try it again.

The next time we plowed the ground early in the spring, kept the weeds down until the 1st of July, but that proved unsuccessful, but the next time it took about the middle of May. We sowed about 20 pounds to the acre. This time we were successful, and out of this poor piece of ground we always cut two crops averaging five tons per acre.

We use real alfalfa, about 100 pounds to the acre, but this alfalfa is now so thoroughly established that there is no weeds or other grass than can get the best of it.

I have great faith in alfalfa and the day is coming when it will be a good crop in the Willamette Valley.

Visitor: I would like to know something about beach grass. Something to hold the sand.

President: Anyone here know anything about it? I'm sure I don't. If Smith came down, I'm sure he could have told you something about it. I don't know anyone here that can give you the information.

If that is all, we will adjourn for tonight and meet in the Chamber of Commerce rooms at Astoria, tomorrow morning at 9 o'clock.

SATURDAY, August 16, 1919

MORNING SESSION

Mr. Worsley: Meeting will now come to order.

Our first speaker is Col. Henry E. Dosch.

FUNCTIONS OF THE STATE BOARD OF HORTICULTURE.

By Henry E. Dosch

The topic assigned to me by our president and secretary demands that in order that it might be properly understood and give a reason for its existence it is necessary to begin at the beginning of fruit growing in Oregon.

When the pioneers in horticulture planted fruit trees and berry bushes, there were neither insects nor fungus diseases, and they were sure of healthy fruits and could eat apples and pears in the dark without running the risk of consuming worms, but in time insects and diseases appeared, growers became discouraged, fruit began to fall prematurely unfit for use, trees were neglected, grew into bushes, mossy and breeding places for all kinds of fruit and tree enemies.

The more progressive orchardists concluded that something had to be done if the fruit industry should live; a meeting was arranged by Dr. J. C. Cardwell, Dr. O. P. J. Plummer, S. A. Clarke, C. H. Welch, W. S. Failing, H. W. Prettyman, Chaunsey Ball, C. E. Hoskins, Thos Paulson, the Luellings, J. H. Lambert, M. Scheydecker, T. E. Slumane, myself and others, whose names I cannot now recall, which was the nucleus for this society, which was organized November 17, 1885, by electing Dr. Cardwell its president, an office he held for 20 years by continued re-election, O. P. S. Plummer, vice-president, and E. R. Lake, secretary. By hard work and talk we succeeded in bringing together quite a number of growers, but we found it up-hill business, as few of us knew anything about insects or diseases, or their destruction and eradication and also found that the majority of fruit growers were indifferent and careless and yet something had to be done, we then agreed to call on the state for assistance, when a bill was introduced and approved February 25, 1889, which has been repeatedly amended up to date and this brings us to the topic assigned to me:

"The Functions of the State Board of Horticulture."

The law creating the board:

An act to create a State Board of Horticulture, and appropriate money therefor.

Be it enacted by the Legislative Assembly of the state of Oregon:

Section 1. That there is hereby created a State Board of Horticulture, to consist of six members, who shall be appointed by the

governor, one from the state at large, and one from each of the five horticultural districts, which are hereby created, to-wit:

First—The first district, which shall comprise the counties of Multnomah, Clackamas, Yamhill, Washington, Columbia, Clatsop and Tillamook.

Second—The second district, which shall comprise the counties of Marion, Polk, Benton, Linn and Lane.

Third—The third district, which shall comprise the counties of Douglas, Jackson, Klamath, Josephine, Coos, Curry and Lake.

Fourth—The fourth district, which shall comprise the counties of Wasco, Morrow, Gilliam and Crook.

Fifth—The fifth district, which shall comprise the counties of Umatilla, Union, Baker, Wallowa, Malheur and Grant.

Section 2. The members shall reside in the districts for which they are appointed. They shall be selected with reference to their study of, and practical experience in, horticulture and the industries dependent thereon. They shall hold office for a term of four years and until their successors are appointed and qualified; provided, however, that three of the board first appointed to be determined by lot—shall retire at the expiration of two years. All vacancies in the board shall be filled by appointment of the governor, and shall be for the unexpired term.

Section 3. The board is authorized to employ a secretary, prescribe his duties, and shall elect from their number a treasurer, who shall give a bond to the governor of the state of Oregon in the sum of \$10,000 for the faithful performance of his duties. The secretary and treasurer shall hold their appointments at the pleasure of the board. Before entering upon the discharge of his duties, each member of the board shall take and subscribe an oath to support the constitution of the United States and of the state of Oregon, and to faithfully discharge the duties of his office, which said oath shall be filed with the secretary.

Section 4. The board may receive, manage, use and hold donations and bequests of money and property for promoting the objects of its formation. It shall meet on the second Monday of April and October of each year, and as much oftener as it may deem expedient, for consultation on and for the adoption of those measures that will best promote the horticultural interest of the state. It may, but without expense to the state, select and appoint competent and qualified persons to lecture in each of the districts named in Section 1 of this act, for the purpose of encouraging and improving practical horticulture, and of imparting instruction in the best methods of treating the diseases of fruit and fruit trees, cleansing orchards, and exterminating orchard pests.

Section 5. The office of the board shall be located in such a place as a majority thereof may determine. It shall be kept open to the public, subject to the rules of the board, every day, excepting Sunday and legal holidays, and shall be in charge of the secretary during the absence of the board.

Section 6. For the purpose of preventing the spreading of contagious diseases among fruit and fruit trees, and for the pre-

vention, treatment, cure and extirpation of fruit pests, and the diseases of fruits and fruit trees, and for the disinfection of grafts, scions, or orchard debris, empty fruit boxes or packages, and other suspected material or transportable articles dangerous to orchards, fruits and fruit trees, said board may suggest regulations for the inspection and disinfection thereof, which regulations shall be circulated in printed form, by the board, among the fruit growers and fruit dealers of the state, and shall be published at least 10 days in two daily papers of general circulation in the state, and shall be posted in three conspicuous places in each county in the state, one of which shall be at the county court house thereof.

Section 7. The said board shall elect from their own number, or appoint from without their number, to hold office at the pleasure of the board, a competent person, especially qualified by practical experience in horticulture, who shall be known as "inspector of fruit pests." It shall be the duty of said inspector to visit the horticultural districts of the state; to see that all regulations of said board to prevent the spread of fruit pests and diseases of trees and plants injurious to the horticultural interests of the state, and for the disinfection of fruits, trees, plants, grafts, scions, orchard debris, empty fruit boxes and packages, and other material are made known to the people of the state. He shall, whenever required, and under direction of the board, and may also, upon his own motion and upon complaint of interested parties, inspect orchards, nurseries, and other places suspected or believed to be infected with fruit pests or infected with contagious diseases injurious to trees, plants, or fruits, and he shall report the facts to said board. The inspector shall, from time to time, and whenever required by said board, report to it such information as he may secure from observation, experience or otherwise, as to the best method of diminishing and eradicating fruit pests and diseases from orchards, and also suggestion in practical horticulture, the adaption of produce to soil, climate and markets, and such other facts and information as shall be calculated to improve the horticultural interests of the state.

Section 8. It shall be the duty of the board, whenever they shall be informed by complaint of any person having an orchard or nursery of trees, or any fruit-packing house, storeroom, salesroom, or any other place within the state that is infected with any noxious insect liable to spread contagion dangerous to the fruit interest of the state, to cause an inspection to be made of the said premises, and if found infected they shall notify the owner or owners or the person or persons in charge or possession of said trees or places infected with insects or their eggs or larvae, and shall require such person or persons to make application within a certain time, to be specified, of such treatment for the purpose of destroying them as said board of horticulture shall prescribe, etc., etc.

The following horticulturists were named by Governor Pennoyer to act on the board:

J. R. Cardwell, President, Commissioner for the state at large, Portland.

James A. Varney, inspector of fruit pests, commissioner for the 4th district, The Dalles.

R. S. Wallace, treasurer, commissioner for the 2d district, Salem.

Henry E. Dosch, commissioner for the first district, Hillsdale.

J. D. Whitman, commissioner for the 3d district, Medford.
James Hendershott, commissioner for the 5th district, Cove.
E. W. Allen, secretary, 171 Second street, Portland.

Our first function was one of education in which we were quite successful; in my own district of seven counties, considering the limited funds at my disposal, I took my horse and buggy and traveled the highways and by-ways, stopping wherever I saw an orchard or even a few prune trees around a home place; old settled districts as well as new settlements, where with two exceptions I was received most cordially, and found fruit growers not only willing but eager to learn and redeem their orchards. Few of the orchardists knew anything of the insects and diseases. By way of illustration, permit me to quote a case in hand. My usual plan in visiting a neighborhood was going from orchard to orchard, so I could see the owners personally and persuade them to do their duty in this line. The case in question was up the valley, where I visited an old gentleman, who emphatically stated, that he had no insects in his orchard, and that if I insisted on going into his orchard he would take his shotgun and see who was master. Now as the law did not provide that any of the commissioners should become targets for "mossbackism," I quietly handed him a copy of the law, referring to Sections 7 and 8, requesting him to read it, which would explain his duty and mine. Having finished reading he became very angry, saying, "They might as well pass a law to compel him to plow his fields," and I said, "Such a law would certainly prove very beneficial." He looked at me in blank astonishment, and I finally persuaded him to accompany me in a visit to his orchard, which he reluctantly did, all the time protesting that he had no insects and nobody could teach him anything about farming; when we rounded the barn and came in full view of his old dilapidated orchard I smiled, as it was so infected with woolly aphids that it had the appearance of having recently passed through a heavy snow storm, and had no difficulty in convincing him that the trees were full of insects by scraping the little brown insects from the trees in the palm of his hand, lively and kicking, when he exclaimed, "Well, I swan." This man soon became a most enthusiastic supporter of the law.

This educational function has been continually kept up and the present state of our orchards with few exceptions shows the beneficial results.

The board made it its business to meet with every society meeting and took part and gave instruction as to the eradication of the insects and diseases, and published spray bulletins and reports for general distribution.

In addition to looking after orchards and berry patches, I took it upon myself to study market conditions, and wrote hundreds of letters to our consuls all over the world year after year where our fruits could be placed and published the results of this research so orchardists could take advantage of it from which immense trade with England, France and Germany resulted, up to the World War, and will again be enlivened as soon as peace is fully settled.

To illustrate: A wide-awake fruit grower from Southern Oregon who had taken advantage of this research for markets sent a few boxes of apples to England by way of experiment in 1897, 21 years ago and shortly after I received a letter from Hon. William Grunnell, American consul at Manchester, England, dated December 7,

1897, which said: "In a lot of apples received from Oregon and on sale in this city were found placards on which was printed 'Rogue River Valley apples from the orchard of C. Kleinhammer, Phoenix, Oregon,' saying finer fruit had never been exhibited in that market and dealers wanted to secure the output for another year, which resulted in the shipping of 4000 boxes the following year.

Another instance in 1903, a gentleman came to our office and presented his card, a Mr. Kruse. He proved to be a commission merchant from Hamburg, Germany, and said to me that he was present when a car of apples was auctioned off and was one of the bidders. He was so impressed with the fine quality of these apples that he had come over in person to make arrangements for his future supply. This car had been sent by a commission house in Portland on information I furnished them received in reply from the consul at Hamburg.

These shipments were followed up very closely by various growers and developed so rapidly that in 1905 nearly the entire output of Southern and Eastern Oregon grown Newtons and Jonathans, some 235 carloads were shipped direct to England and Germany. These shipments were distributed as follows:

To Liverpool	120 cars or	72,000 boxes
To London	45 cars or	27,000 boxes
To Glasgow	8 cars or	4,800 boxes
To Manchester	7 cars or	4,200 boxes
To Hamburg	30 cars or	18,000 boxes
To various points	25 cars or	15,000 boxes

A total of235 cars or 141,000 boxes

These apples netted the growers \$1.50 f. o. b. shipping station. While this was not a direct function of the board, yet it proved to be of immense benefit to the fruit industry of Oregon.

Thousands of acres of fruits have been planted since our organization, most under our advice as to which sections are best adapted not only as to the kinds of either apples, pears, prunes, cherries or walnuts, but which sections were more congenial as to the variety, as to the soil and climatic conditions.

A very important function of the board, which in itself is a police duty, is the quarantine we have established, by prohibiting the sale of any infected or infested fruits in our markets, either home grown or imported from other states, also inspection of nursery stock, either home grown or imported from other states and now that we have been appointed collaborators of the Federal Horticultural Bureau, we are government-quarantine officers and inspectors of all kinds of fruit stocks, trees, shrubs and bulbs from without the United States, which in itself is a very important function to prevent the introduction of new insects or fungus diseases.

In the absence of an agricultural board the function devolved upon us the inspection of potatoes and alfalfa. The alfalfa weevil so prevalent in our neighboring states, especially Idaho, is a menace to our large alfalfa plantations, hence we quarantine against shipping into Oregon, any alfalfa hay and strict orders have been issued at our request by the railroad officials to their agents all along their lines, from receiving or delivering any hay from Idaho. Our commissioners and inspectors are particularly vigilant, against Cali-

ifornia shipments of potatoes, on account of the tuber moth, eel worm, fusarian wilt and rhizoctonia, hundreds of car lots have been returned to California and some which were so badly infested with tuber moths had to be steamed and destroyed, for fear the moths would escape in return transit to California.

Permit me to quote from Mr. Allen's report, commissioner of Southern Oregon:

"I think I may say without fear of contradiction that the work of the State Board of Horticulture in this one matter of keeping the tuber moth out of the state of Oregon, has resulted in the saving of millions of dollars. The average grower, or in fact any one not entirely conversant with the subject, can hardly appreciate the extreme danger to the potato crop from this source. The rapidity with which the tuber moth multiplies is astounding. An experiment made in the Pathologist's office in Jackson County with two tubers infested with the moth, showed how rapid the production was. In a comparatively short time, from these two tubers, over 200 moths and larvae were hatched. If the State Board of Horticulture had done nothing else this item of preventing the introduction of the tuber moths would be sufficient to have paid thousands of times over for all the money spent by this organization."

A function which particularly applies to the secretary is in addition to soliciting books, pamphlets, periodicals and other documents containing valuable information relating to horticulture and preserve the same, actual conditions and progress of horticulture, etc., to answer all letters from within the state from growers, about insects and fungus disease, giving full information and advice, and from without the state inquiries about fruit growing, best sections adapted for various fruits, etc., which in itself is valuable as it acts as immigrative literature, bringing to our state many intelligent horticulturists.

We have also received many letters from other states for copies of our laws and quarantine, as well as modes of procedure and work by this board which have been adopted verbatim by them with tenfold the amount of appropriation, that is allowed to us, which speaks very well, as the highest compliment that can be paid to any one is the copy of his ways, actions and work.

In our biennial report, now on the press and which soon will be ready for distribution, the Horticultural and Quarantine Laws of Oregon and the United States are published in full, together with other valuable information which can be had at our office or write to me at Portland.

The clean merchantable fruits, the remunerative prices received by the growers, the high plane and volume which our fruits have attained, second to no other industry in our state, is undoubtedly the direct result of the fostering care and activity of the State Board of Horticulture.

Experiment Stations versus State Boards.

Some interested persons are continually harping on the superfluity of state boards, claiming that the work done by these boards should be done by the experiment stations and its professors. In reply to them permit me to quote from the Experiment Station Records, Volume VII, No. 6, of recent date, published by the United

States Department of Agriculture and edited by A. G. True, Ph.D., director.

After speaking editorially of the value of experiment stations to the agriculturist and horticulturist, and pointing out the errors in which some stations have fallen into, concludes:

"The experiment station was established to make experiments. The closer it sticks to its trade the greater will be its success in the long run. It does well to refuse to do a great many things which might help agriculture and horticulture. The education of the farmer requires other agencies. Police duties relating to the protection of its interest against fraud or loss may wisely be committed to state boards organized for the purpose. If the experiment stations will thoroughly bring to him such aid as experimental science with its ever-widening range of operations can afford, it will perform the highest kind of service, and in the sequel will obtain the best of reward in the confidence and esteem of intelligent, practical men.

"The introductory clause of the Hatch act has apparently misled many people more or less intimately associated with the experiment stations. The stations are undoubtedly 'to aid in acquiring and diffusing among the people of the United States useful and practical information on subjects connected with agriculture and horticulture,' but this information is to be obtained by conducting original researches and verifying experiments, and the money from the national treasury is given solely 'for paying the necessary expenses of conducting investigations and experiments, and printing and distributing the results.' It is very clear that this act did not contemplate that the stations would be general agents for promotion of agriculture. Their operations were not to interfere in any way with the work of state boards or commissions of agriculture and horticulture. A large, distinct and important field of work was plainly marked out for the stations in the organic act, and it will be well for the agriculture of the United States if they are kept within these limits.

President: I believe at this time we ought to just apply a few minutes to the welfare of our organization. There is to my mind matters that should be taken up by our organization for the benefit of our great state through this organization, and I believe a committee of three at this time to get together if possible and think up what might be for our benefit. To submit resolutions in that connection so before we adjourn we can act upon them and take them up and I will leave it to the members what you think about it.

We also ought to have a committee go to the legislature. The legislature does not meet again until a year from now, but we must surely have a committee go to the legislature to take up matters of vital importance. I am not going to appoint one now. I will leave it to our new president, and I believe he can do it at that time, but I do believe we should have a committee on resolutions during the balance of the session. I will appoint Mr. Paulus, Mr. Griesen, Mr. Holt.

Mr. Holt: I make a motion here that we, the Oregon State Horticultural Society hereby extend a vote of thanks to the Astoria Chamber of Commerce and secretary of the Chamber of Commerce

and Mr. Worsley as president, for the work they have done in making this meeting the pleasure it has been. Carried.

Worsley: I am going to appoint a committee of three to prepare a suitable memorial on the death of Governor James Withycombe, a member of this society, and that such memorial be published in the annual proceedings of the society and copy forwarded to the legislature and to the executive officers of the state. Committee: Col. Dosch, Mr. Minton, Mr. Worsley.

FRUIT CONDITIONS AND PROSPECTS—SEASON 1919.

By Robert C. Paulus

The present season will go down in history as the most prosperous from all standpoints that the growers in Oregon have ever had. Not only has there been, in most instances, average or better than average crops, but prices have ruled, in practically all cases, at the highest point ever reached, and fruit growers who for 10 years have had mortgages on their places will find themselves out of debt and able to purchase and enjoy a few of the luxuries which their city friends enjoy and which they have had to deny themselves.

From the fruit grower's standpoint the season has been a very profitable one and the fruit growing has become a very desirable occupation, with the results that land values are increasing and thousands of families, who have been working in cities, are looking back to a return to the soil for making their living. This cannot help but produce a heavy increase in plantings of various kinds of fruits, which will tend to enormously increasing the size of the fruit business in Oregon.

There will very soon be in bearing 100,000 acres of fruit in Oregon, and increased plantings will cause this acreage to double within ten years. The possibilities of the fruit business in Oregon are immense; in fact, those in close touch with the industry believe it has not yet even been scratched.

From the manufacturing end of the business, particularly the canning industry, there has been an enormous increase in the number of plants canning fruit in Oregon in the last three years. Three years ago there were a scant dozen canning plants in Oregon. Now the total number of plants canning fruits is in the neighborhood of fifty. These plants are not concentrated in any particular place, but are scattered all over the state, and most of them are still more or less in the infant stage as far as output is concerned. This distribution of plants is one of the indications of the possibility of an enormous increase in acreage, tonnage and the amount of money brought into various communities. It is the foundation for a large business, and looking at the business as a whole it is a good thing that these plants are more or less isolated from each other, as it permits each locality to plant to the limit of the amount of harvesting help it can obtain without interfering or being interfered with by other communities. The question of harvesting help is going to be one which will need a great deal of consideration and may in time come to be one of the limiting factors in the quantity of fruit that will be raised.

On account of heavy increases in bearing acreage of various kinds of fruit, especially prunes, apples and nuts, a heavy increase

in the number of packing houses and equipment will be required. This condition has been foreseen by the growers themselves through their associations and the present Oregon Growers' Co-operative Association is the result of the efforts of the growers to take care of this condition.

One of the outstanding features of our industry in Oregon is the lack of a national individuality. Other states have been continually packing out our best products and buyers in buying them have been compelled to purchase our products through San Francisco or other outside cities. Some good work has already been done towards nationalizing Oregon fruits and vegetables by the Phez Company, the Wittenberg-King Company and one or two other concerns. At the last meeting of the legislature, your legislative committee, of which I was a member, did some work along this line by introducing a bill to compel concerns operating in Oregon to state on their labels that their fruit was either "Oregon Grown" or "Oregon Packed." It was not feasible, however, to put these clauses on what is known as "Jobber's Labels," and in wording the bill to take care of this condition an amendment was made which was ambiguous enough to permit outside concerns operating in the state to operate under the same conditions as before. In order to "Oregonize" their fruit industry the growers have decided that it was necessary to "Organize" themselves. The plan of the new Oregon Growers' Co-operative Association will be to individualize their industry by national advertising, and put Oregon's superior fruits where they belong, as the saying is "In the Sun."

With the increase in acreage new problems, of course, in marketing will present themselves and by collective marketing and modern selling methods growers expect to minimize the difficulties attendant with the heavy increase in production. Co-operation which has done such wonders in the business world will be scientifically applied to the marketing of the products of the producer.

There are a number of possibilities in various lines which up to the present time have been untouched owing to a lack of immediate market. The development, however, of the fruit products business in the state has provided a possibility for planting a large number of new and profitable varieties of fruits. Among these fruits are the following:

- Green Gage Plums.
- Damson Plums.
- Shiro Plums.
- Kentish Cherries.
- Large Montmorency Cherries.
- Raspberries.
- Strawberries, Trebla and other varieties.

To best handle any kind of a manufacturing business it is desirable to have a large spread of products over which to divide the overhead expense, and with which, also, to fill in the time in the manufacturing departments which otherwise is not used, thus preventing idle labor and equipment. A large number of these new varieties for which there is a ready market in a canned state or as preserves, jams or jellies, are ready to harvest at a time when the plants would otherwise be idle. Thus these fruits, if obtainable, would have a tendency toward greater efficiency and reduction in operation costs.

With the growth of prohibition there has been an extremely heavy increase in the demand for berries and other small fruits for flavoring, etc., for soft drinks. With complete national prohibition the possibilities in this line are almost inconceivable. Strawberries, for instance, are in extremely heavy demand and a very large reduction in acreage in the United States, due to root weevil and other causes in other sections, gives this state an opportunity of which they should take every advantage, as it is an opportunity for an increase in an industry in which Oregon excels all other states in quality.

While the future looks very rosy for the fruit grower we must not see all of the silver lining. With increased age many orchards are going to decrease in productivity. More care and fertilizers will be necessary. More scientific knowledge must be acquired by growers in order to enable them to cope with their troubles to better advantage. Power implements will, no doubt, be a great factor in the cultivation and care of orchards in the future. Tractors, power sprayers, auto trucks and automobiles will feature strongly in fruit growing practices in the future.

Some parts of the industry, such as apple growing, which has been rather out of favor, are now in an exceedingly prosperous condition and the outlook is very favorable. It is apparent as time goes on that the older orchards in the East are going to produce apples more and more inferior in size and quality as compared to the Northwest apples. On this account it is only a question of time until the Northwest apples will stand more and more in a class by themselves, especially in boxed apples. The fact, too, that no plantings of apples have been made for some ten years past and practically no nursery stock is available, which will make it 10 years more before new plantings will come into bearing, makes it begin to look as though apples will be on a good substantial basis for some time to come. Apple land values have risen rapidly during the past year.

FRUIT AND VEGETABLE CANNING.

By J. O. Holt

About the year 1795 the French government offered a prize of 12,000 francs for the best method of preserving fruits and vegetables aside from pickling or drying. This prize was awarded to Nicholas Appert in 1810, thus, canning was not an accidental discovery but the result of hard and intelligently directed labor of a French scientist..

Although a French invention, its development has been largely due to American enterprise. At the present time it is only in the United States that canned goods are packed in water or syrup. Other countries pack largely jams, preserves and fruit and vegetable pastes. For instance, in Italy tomatoes are canned by being peeled, pulped, part of the moisture removed and then canned as a thick paste.

On the continent peaches and apricots are canned the same way, though thousands of cases of this paste are being exported from the United States to these consuming countries.

I will not take the time to follow the development of the canning industry from the time of its beginning in France, interesting as it is. Its growth was slow until the Civil War. Since that time it has grown with increasing momentum until it is not only one of the big industries but one of the vital industries of our country.

It is the canner who takes the surplus perishable products which would otherwise be lost, and preserves them for consumption through the balance of the year. If it was not for the canner perishable fruit would be in over supply at picking time, the price would become so low the producer would lose money and production would be cut to a half or a third of the needs of the public.

The industry has developed in rather well defined belts. The best corn is packed in Maine, Northern New York, Wisconsin and Michigan.

Tomatoes take a more Southern belt country—in Maryland, Virginia, Southern Ohio, Indiana, Illinois and Utah, while peas are packed in a belt between and overlapping the other two. By far the larger part of the fruits are packed on the Pacific Coast.

The total pack of salmon in 1918 was eight million cases, peas 10 million cases, corn 11 million cases, tomatoes 15 million cases and a total pack of all sorts of vegetables of 48 million cases, while the total pack of all kinds of fruits for the same year was 11 million cases. There were packed in Oregon last year about 750,000 cases of fruits and vegetables including jams, jellies, etc. Of this amount only about 25 per cent was vegetables.

I expect to see our most rapid development in the future to be in the canning of vegetables. Not necessarily tomatoes and peas, but string beans, beets, broccoli, carrots, parsnips, turnips, etc. Our climate is especially adapted to produce these with a flavor and texture which cannot be excelled elsewhere. We are now selling these vegetables in car lots to restaurants and hotels. These people find it cheaper to buy the canned article than to buy in the local market, and pay the cost of peeling and cooking them. The canner takes the vegetable fresh and crisp from the fields, prepares them by machinery and cans them before they have time to wilt. Fruit is sometimes improved by standing awhile after picking but a vegetable immediately begins to deteriorate.

Just as the Civil War made canning a commercial industry the present great war has proved it to be a national necessity. No industry is going forward faster than this. Machinery which was the best obtainable one year goes to the junk pile the next season to make room for improvements.

Canning factories today are being made more sanitary than most of the kitchens in our homes. People are learning that canned foods are the purest, cleanest and most sanitary foods obtainable.

One of the hardest lies about canned goods to down is the old bugaboo "Ptomaine Poisoning." Even now in this enlightened age occasionally some ignorant editor will publish a story of ptomaine poisoning from eating canned goods. Officials of the National Canners' Association have for years been running down these stories and trying to find an authentic case of ptomaine poisoning traceable to canned goods but without success. Two years ago a committee headed by Dr. Roseneau, of Harvard University, was appointed to try to settle this matter. After studying 51 cases involving 1500

persons, they have been unable to verify one case of ptomaine poisoning traceable to canned goods. Their verdict is summed up as follows: "It is becoming convincingly clear to us that there is no such thing as 'ptomaine' poisoning, and that canned goods have a clean bill of health. They are, in fact, the safest foods that come to our tables." Ptomaine poisoning has often been used as a cloak for professional ignorance.

The canning industry is prosperous and expanding rapidly in a great many directions, but the future is not altogether clear of difficulties. Competition in many locations is becoming so keen that it is impossible to run a plant in the most economical way and get the most out of the product for the man who grows it. In order to do so the plant must run at capacity for the greater part of the season. But when the canner must not only take into consideration the hazard of the elements but must compete with other canneries and the fresh market for his supplies he cannot pay as much or sell as cheap as he should. I predict that it will not be many years before the canners will have to grow their own supplies or the growers will have to own their own canneries. The canneryman is a criminal if he adds one cent more than is absolutely necessary to the products as they pass through his hands from the producer to the consumer. Why?

The big meat packers are reaching out their tentacles to take in the canning industry and are making some headway. I see no better way to solve these problems than by supporting growers' co-operative associations.

WILL CO-OPERATION SOLVE GROWERS' PROBLEMS?

By A. H. Harris

In considering this important subject it will be well for us to set out a few definitions of words and terms, that confusion may be made less easy and the discussion may remain within well-defined limits.

I take it that co-operation is understood to be that branch of socialism which is engaged, exclusively or largely, with the theories of labor and methods of distributing profits, and which advocates a combination of many persons to gain advantages not to be reached by individuals.

The term socialism, view in its proper and broader sense, means the doctrines which have dealt and are dealing with everything that enters into the life of the individual, the family, the church, or the state, whether industrially, economically, morally or spiritually.

Society, as I view it, is a growth, a slow growth, and not a construction.

While it is admitted that there are large capitalists, the state is the largest capitalist of all, and ever must be.

The distribution of the wages of labor and the profits of capital is the most important problem of political economy and the burning issue of the hour.

In its simplest form, co-operation is associated as opposed to isolated effort.

Under present conditions of production and distribution there are points of common interest in every business enterprise and every effort worth while that ought to be considered in a group, and where reciprocal service must be rendered.

As producers from the soil, men have a common character and a common field of interest. They have common problems which cannot be solved by individual effort, by personal forbearance nor by personal pugnaciousness.

We must not forget that mass action was unknown among primitive men except in warfare. It remained for civilized man to endeavor to gain for himself some of the good things of life by affiliating himself with his fellows in trade and production.

Men Become Impatient at Apparent Slow Progress.

When considering the economic problems which vex us it is the habit to become impatient and imagine that no progress at all is being made. We are prone to forget that the world is built upon a plan of ages, not years. While the seasons come and go rapidly with human beings, ages pass slowly in the story of the world. With the exception of man, little change is possible year by year or generation by generation. I am convinced that imperfect conception of the passing of time is the true cause of much of the impatience and complaint we feel and hear, and it is, certainly, the cause of much of the misdirected effort on the part of so-called progressive persons.

The reading of history convinces me that there is little in the world which can be classed as truly new. Like a stage the scenes change, because men come and go, because one generation follows another, building on the foundations left by those who have passed on. Fundamentally the world has evolved only slightly in thousands of years, and from century to century man has not grown and developed as much as we at first glance think he has. While habits and customs change, selfishness remains, and individualism is slightly less pronounced today than it was 5000 years ago.

Law and Discipline Universally Provoke Rebellion.

If all the world had been discovered at one time everything would have been different, and, perhaps much more to our liking. But the world has been discovered, developed, if you please, piecemeal, a bit at a time, since the days of the Garden of Eden. New country has ever been the mecca of the pioneer, the rugged individualist, the socialist, the anarchist. For be it remembered, the Pilgrim Fathers were not the only men who ran away from law and discipline, who rebelled against the regulations of neighborhoods, who refused to comply with the demands of part of the people for uniformity of conduct in public and behavior in private. While we are much peturbed at times about anarchy and disrespect of law, we have only to look back to any movement of men to a new section of the world, and we find always the compelling element in their minds the idea of getting away from restraint, the rebellion against constituted authority, the purpose of leaving behind them the law, which they considered unjust or at least oppressive.

Every new country has had its lawless age. Every new country has had its cycle of extreme individualism. Every new country had

to submit to the regulatory influence of common sense, to the control of the majority, to the mandates of enlightened public opinion, largely because it had to deal with older sections where law was considered more or less sacred, and its enforcement necessary to the public welfare. Just as in true pioneer days in the West, it was the rule for lawlessness to run rampant and finally to be crushed by another form of lawlessness, lynch law, so has it been that individualism for a time held sway and finally had to disappear, for it left wealth on the one hand and poverty on the other, among the whole people. Left to his own devices individual man never can solve the problems of civilized living. He gets relief economically from group action, after as a mass he has learned that the success of one or two men in a community does not mean general prosperity and healthy progress.

Ambition Great Impelling Force of Youth.

Not alone must we consider the gradual subduing of the world as the chief factor in the development of the spirit of co-operation. We must also calculate the span of a man's life and the period of his greatest activity. In a new country young men predominate, control, drive. Filled with ambition, and knowing as only youth knows, that anything in the world that is wanted may be had by wanting it to a sufficient degree, the young man cares little or nothing for his neighbors, or for anybody who does not contribute to his financial strength. With one idea developed he works and plans. He grasps and gains. Middle life finds his ambitions nearly realized or at least his hopes suppressed. Then Fate intervenes, in nearly every case. Old age finds him broken in spirit and wrecked in finances, ready to accept the idea and the assistance of co-operation and to slow down his speed. But a younger man has taken his place in the busy world, and, left a wreck along the speedway, he sees the old struggle of individualism go on.

But some one says all the new country has been discovered; all the new land has been subdued; all the world has begun to count the years. Men are wont to say that the frontier has been pushed forward for the last time. Perhaps that is true. But the size of the circle of a man's life has not been changed, the period of youth and middle life has not been shortened, and the wreckage of old age has not been obliterated. The cycle of a man's life time is about the same as it was a thousand years ago. What, then, is the encouraging sign for the future?

I have only one answer, education.

Education of Broadest Character Develops Tolerance.

By education I do not necessarily mean book learning. I mean all the book learning that can be acquired without crushing initiative, and I mean more. I mean the touch of close associations, the understanding which comes with common trials, the tolerance which comes as the legitimate fruitage of misfortune and crushed ambition. So long as a man thinks the world was made for him, whether he has spent all his lifetime in schools and universities or whether he has been a highwayman successful at his hazardous job, he is not subject to infection by the co-operative idea and he is not educated, no matter what he may think or believe, in his semi-blindness.

I am not quite certain that our boasted system of education is not responsible for considerable of the extreme individualism so common in this country. For generations the American boy has been taught that he could become president by a simple twist of the wrist. His natural bent toward personal independence has been cultivated. Even in his sports he has been taught that the game was for the few and that the dignified thing for him to do, unless, perchance, he might excel in athletics, was to occupy a prominent place on the bleachers and yell to his heart's content. Team work has not been the strong feature of our educational system, as I see it, and as I come in contact with the result of the work of the school and the college.

Party Control System Tends Toward Clique Rule.

Co-operative effort and organization have been made difficult, also, by our political system. Under the party plan of organization, men of all callings are gathered into one conglomerate, unwieldy body for political action. The producer, the middleman, the consumer, the banker and the laborer, each is here in person and in representative capacity, and each is making all the noise he can or knows how to make for the party organization or for the party candidates. By no chance, whatever, under present conditions of public sentiment, would it be possible for the different and widely divergent elements represented to co-operate on the economic or the industrial fields. Little wonder it is, then, that legislation is such a patch-work affair in this country. In order to have effective co-operation between men in any line, there must be common interests, there must be something to gain that will ultimately benefit every one, not a few, only. The political manipulation in the United States has been in the interest of the few, in altogether too many instances.

In this matter the producer has himself to blame most of all. He has been in the habit of allowing the siren song of self-seeking politicians to control his vote. He has been in the habit of believing that the loud declaration in behalf of the "horny-handed son of toil" meant something more than an effort to get at the public crib. In the end he has been forced to the conclusion that he and his interests have been used as political ninepins. Only through group efforts as producers have the agriculturists of this country been able to gain legislation of any importance to the greatest business enterprise the country has or can have. With this record extending over hundreds of years, and with little progress really achieved, there is plenty of room for co-operative efforts in the years ahead.

Emphasis of the Religious Side a Deterrent Force

Along a third line progress in co-operation has been made difficult, so far as the average producer is concerned. Religious organizations have been strong and alert in the years past, among men and women living in the country districts. Bound together by certain religious beliefs, men form themselves into small cliques and organizations, each soul stirred by the purpose to serve the same God, and each more or less suspicious and afraid of the other fellow, because of his alleged heretical beliefs or practices. In all the relations between groups of men, no tie is as strong as the religious bond, and no chasm separates men more widely and hopelessly than religious

differences as represented in well-defined creeds and doctrines. A significant fact may well be mentioned in this connection. In countries where co-operative effort has made rapid progress, there is, generally speaking, a dominating religious faith and practice firmly established among the people.

With religious divisions the rule and not the exception, and with a political system which stands in the way of progress in co-operation among the people, it is not to be wondered at that in the matter of legislation and in the matter of community development little progress has been made. How would it be possible for men acting as legislators, coming from widely differing group interests, and from unreconciled religious bodies, to plan and secure legislation leading to permanent better conditions? Men must serve their masters, not the whole people, in matters of legislation, if they would prevent their political heads from falling into the basket. First of all the group in power must be served. And, the best service is that which extracts money from the people and gives it to the interests which demand it.

Lack of Faith in Fellows and Unwise Leadership.

The two most common and well-known obstacles in the way of co-operation among the producers of the country are lack of faith in each other and the habits of change of residence, either from necessity or choice. With the tenant system of soil cultivation fixed in this country, it seems necessary for men to make frequent changes of residence. The short time lease is one of the real curses of agriculture. With a constantly flitting population, there can be no faith worth while, there can be no ties of family honor and community life which characterize production in the older countries of Europe. Men who have been suddenly thrown together seldom have much faith in each other. Men who expect to change locations at the end of the season have little means of co-operating to their mutual benefit.

Character is a plant of slow growth, and it requires a peculiar development of character in the individual and vision in the community to make permanent and certain, co-operation in spirit and in truth.

Perhaps the retarding factor of most importance in this country has been faulty methods in putting co-operation into practice. The rule has been to stick to theories instead of facts. Failure of projects undertaken in good faith has done great damage to the movement as a whole. And, failure came, usually, because the men in control were theorists, pure and simple, with a defiance for facts which did not harmonize with their pet theories of what the people wanted or should do, or needed or should have. Co-operation cannot prove successful in any country until it has been based on conditions and facts, no matter how undesirable either or both may be, or how much they may lack in conforming to the set theories of men who may assume to be able to change the movement of the earth by a new organization.

Thorough Organization Best Method of Meeting Obstacles.

A new and desirable type of leadership in organization work has arisen in this country during the last past decade, giving a most

hopeful outlook for the future. Men of vision have come to the front in a number of sections of the United States, men who endeavor to build plans on all the facts and all the known conditions, leaving theories to others who have assumed responsibilities less grave. Examples of remarkable success are not uncommon, and wherever efforts have met sufficient support on the part of producers, co-operative projects have brought very satisfactory results. It is only the truth to say that the larger the co-operative project the more successful it has proved during the last decade, and only the smaller ventures and schemes have passed on as failures. This fact clearly indicates that there is needed a certain quality of business training and experience, with wide and reliable information, at the head of any enterprise which has to trade with the people in a general way.

The future success of co-operative projects will depend on several factors. The first and most important is thorough organization. It is not enough that wide-awake producers agree to co-operate. The small producer, the fellow who is having a hard time to get along, must be gathered into an organization and there supported. The independent buyer who always plays havoc with markets, will flourish so long as small and struggling producers have to grab for the immediate dollar, no matter what sacrifices in the matter of price they have to make. It is the struggling producer who most needs organization and its support, and it is he who is most essential to the success of the organization if it is to serve in the broadest and best sense.

Awakened Church Must Be Moral Balance Wheel.

A form of organization which must be largely relied upon to overcome religious intolerance is the community church. Being introduced slowly and having time to develop the spirit of service so essential, the community church seems to have a future of great value in a sorely neglected field. Wherever producers understand the value of the country church without denominational handcuffs, and support virile organizations, intolerance will, largely, disappear. The sectarian church in country districts may be of some practical service, but it does as much harm as good, unless liberally supported and wisely led. Men gathered in a neighborhood, engaged in producing the same commodities for the same markets, should have no time for the petty divisions which come through sectarian churches, each struggling for its existence and unable to undertake any constructive work for the community.

The church must be depended on as the only distinct moral balance wheel, and in the rural districts it should take on the leadership in community life that it now assumes to have in things spiritual. It is a reproach against the good name of this country, that the spirit of commercialism has practically killed out the country church—starved it out. On the other hand the country church lacked leadership which comprehended human needs this side of the pearly gates.

Specialization, Organization, Co-operation, Profits.

Organization among producers is to be easier as the years pass. With the specialization in agriculture and horticulture which has marked the last few years, producers are massing in groups. Men

engaged in the same line of effort are being drawn together in the country just as they have been drawn together in the city. There are many things in common in the ideas of men solely engaged in the production of the same kinds of fruits, the same kinds of vegetables, the same varieties of cereals, the same high grades of livestock. By close contact men realize that their problems may be faced in common, and above all that an injury to one is an injustice to all.

But that is not all. Production of certain fruits, for example, in a large way, demands markets at great distances, and wide distribution. Markets demand certain commodities in certain conditions, of known grades and quality. Here comes in the element of salesmanship, for it is true today that every commodity must be sold. Producers too long have overlooked the importance of developing markets and the necessity of real salesmanship. We must not forget that men and women have been "educated" away from the good old fashioned habit of buying what they needed. They have been taught to wait until things are forced upon them. And, it is true, that generally people are willing to pay a liberal selling expense.

Work Without Brains May Mean Continuous Poverty.

Whether co-operation, with its faults in operation, will solve the problems of the growers, I am not able to say. But I am convinced that the outlook is bright, that the future is filled with promise. Difficulties which have stood in the way of prosperity for the man on the land are disappearing. Leaders of thought are comprehending the necessity of forcing the country to catch up with the city development. Isolation is disappearing, through the automobile, the good road and the electric current. I think the war has taught us that a true dignity attaches to thorough tillage of the soil, to production of food. And, the farmer himself, has gotten away from the idea that he did not need profits for his work.

Perhaps it is late, but producers are learning that they may work themselves and their families to death, tilling the soil, and without mixing brains with their business, may be poverty stricken all the days of their lives. Men are fast learning that they cannot live to themselves alone, even if they have large tracts of land to till. Producers are learning, in fact a considerable percentage of all the producers in this country have already learned, that the marketing end of their business is the important factor in making up success and a bank account. And, marketing cannot be carried on successfully nowadays in small units. The expense and waste items are too great.

Standardization and Co-ordination Taught By the War.

The great war has taught us valuable lessons in standardization and co-ordination. We have gained the first glimpse of the neighborhood of nations, and we have had a striking demonstration of the waste of competition. As soon as the nations succeed in standardizing guns and ammunition and were ready for effective fighting, the Germans were ready to quit. At the time when the armies of the allies were in perfect co-ordination and co-operation, the war had been won and peace was in sight. Individuality in nations had been terribly expensive in blood, but the lessons of co-ordination had to be learned, and fully learned.

Let us carry some of the lessons learned during the war into the activities of peace, into industry, into horticulture and agriculture. Millions of young men have been taught teamwork in the army, as well as the tremendous force of a common purpose. They should be guided so as to carry the same spirit and enthusiasm into the tasks of peace in the future.

Co-operation will solve many of the producer's problems by increasing profits, shortening the hours of labor and bringing the real joy of living in the country. Thorough co-ordination will greatly decrease cost of production. Co-operation will drive the wolf from the door of the poor man by giving him a chance at some of the good things of life—and the rich man can take care of himself. In a true democracy poverty should be unknown among men willing to work, and cutthroat competition should be relegated to that place from which none of the blessings of mankind comes.

HORTICULTURAL DEVELOPMENT THROUGH THE HIGHWAYS OF THE STATE.

By E. J. Adams

There are hundreds of thousands of acres in Oregon adapted to horticulture, but not productive for three reasons:

- (a) Inaccessibility to market,
- (b) Inability to get help in harvest time, and
- (c) Undesirability of home life there during the winter months.

We might add also the lack of canneries, dehydrating and preserving plants, but as these always closely follow production should not be counted as one of the reasons.

There is probably nothing to which Oregon acres can be devoted that will produce as much net income per acre as horticulture.

Having the climatic, soil and other conditions, it is a shame to let these acres remain idle for the want of but one thing that will remove the three obstructions that stand in the way of such a large increase in the state's production and income—better highways.

For a few months in the summer the old road may be used for motor traffic with fair success and make life out on the farm quite endurable for those few months, but the demand for inland "summer homes" in such close proximity to "so much to do" as there always is on a farm in the summer time, is not very great. People want "all the year" homes, and in this age are not content to live on knolls surrounded by seas of mud for months at a time.

Farm land on a poor road is no longer desirable or saleable. Home life there only appeals to those that lack the ambition to have and enjoy modern conveniences of water, light, heat, phone and daily mail by motor in the country home.

A strip of right-of-way with two fences no longer constitute a public highway. Where the ox and horse may wallow through the motor coughs and stops.

We are no longer building roads with the thought of merely serving ourselves and a few neighbors, but we are building a great transportation system, the third great transportation system of the world. First was the water way, that served the people of

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